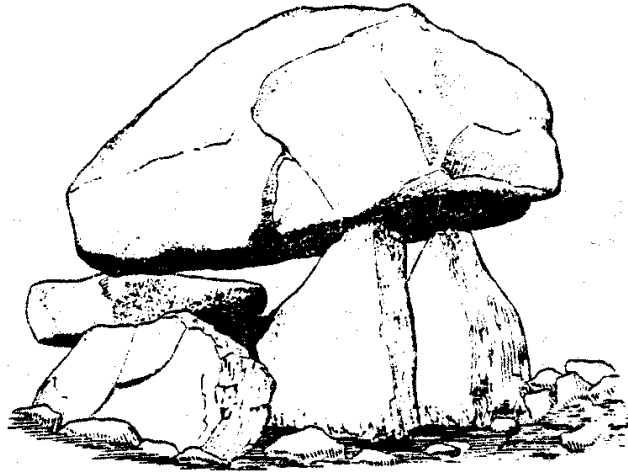


ULSTER ARCHAEOLOGICAL SOCIETY



Survey Report: No. 5

**Survey of Greenhill, Annahilt,
Co. Down
UAS/06/05**

In association with



Ian Gillespie

29th December 2007

© Ulster Archaeological Society
First published 2007

Ulster Archaeological Society
c/o School of Geography, Archaeology and Palaeoecology
The Queen's University of Belfast
42 Fitzwilliam Street
Belfast
BT9 6AX

Contents

	Page
List of figures.....	4
1. Summary.....	5
2. Introduction.....	7
3. Survey.....	14
4. Discussion.....	22
5. Recommendations for further work.....	26
6. References.....	27

Appendices

1. CAMSAR record form.....	28
2. Photograph record sheet.....	29-32
3. Mechanics of Horse Gin.....	33

Supplement

History of the Occupants of Greenhill	S3
Transcript of Irvine-Matthews Headstone in Church of the Ascension Annahilt..	S4
Irvine-Matthews family tree.....	S6
Oonagh Lewers Matthews' Ancestors.....	S7
Matthews-Lewers Family Tree.....	S8

List of Figures

Figure	Page
1. Location map for Greenhill, Annahilt, Co. Down.....	5
2a. Boundary map for Greenhill, Annahilt, Co. Down.....	5
2b. Site map of area surveyed.....	5
3. Aerial photograph of Greenhill Site.....	6
4. Photograph of Greenhill looking to the west.....	7
5. 1640 Map of Kilwarlin with Bally Lentaugh outlined	8
6. Detail of Bally Lentaugh from figure.5.....	8
7. 1800 Estate Map of Ballylintogh.....	9
8. Detail of 1800 Estate Map from figure 7.....	9
9. 1803 Map of Ballylintogh	10
10. Detail of 1803 Greenhill, showing old boundary.....	10
11. To show change in property Boundary after 1803.....	11
12. 1856 Estate Map of Ballylintagh	12
13. Detail of 1856 map with Greenhill outlined in red.....	12
14. OS Map 1 st Edition 1833.....	13
15. OS Map 2 nd Edition 1859.....	13
16. OS map 3 rd edition 1903.....	13
17. Site plan of Greenhill.....	15
18. Site plan of creamery building.....	16
19. Site plan of garage/store.....	16
20. South west elevation of creamery	17
21. South east & north west elevations of creamery.....	17
22. North east (rear) elevation of creamery.....	18
23. South east (front) elevation of store/garage.....	18
24. Creamery looking to the west.....	19
25. Creamery & sty looking to the south.....	19
26. Phases of Creamery Building.....	19
27. Garage/store looking to the west.....	20
28. Garage/store looking to the south west.....	20
29. Horse gin.....	21
30. Horse gin detail.....	21
31. Standing stone.....	21
32. Craig-E-Brae Horse Gin.....	25
33. Horse gin remains at Tully Castle	25
34. Horse gin at Wester Kittochside.....	26

1. Summary

1.1 Location

A site survey was undertaken at Greenhill farm in the townland of Ballylintagh, Parish of Annahilt, Co Down, grid reference J2914 5554. Greenhill formed part of Lord Downshire's Kilwarlin estate in the Barony of Iveagh Lower.

Greenhill is a complex of farm outbuildings on land which is leased by the National Trust to local farmers for pasture. The property was bequeathed to the National Trust by its last owner, Dr Oonagh Matthews. This was the fifth of a series of planned surveys to be undertaken by members of the Ulster Archaeological Society. There is a standing stone on the property, 150 m north west of the farm buildings, at J2908 5589 (SMR Number: DOW 021:081.)

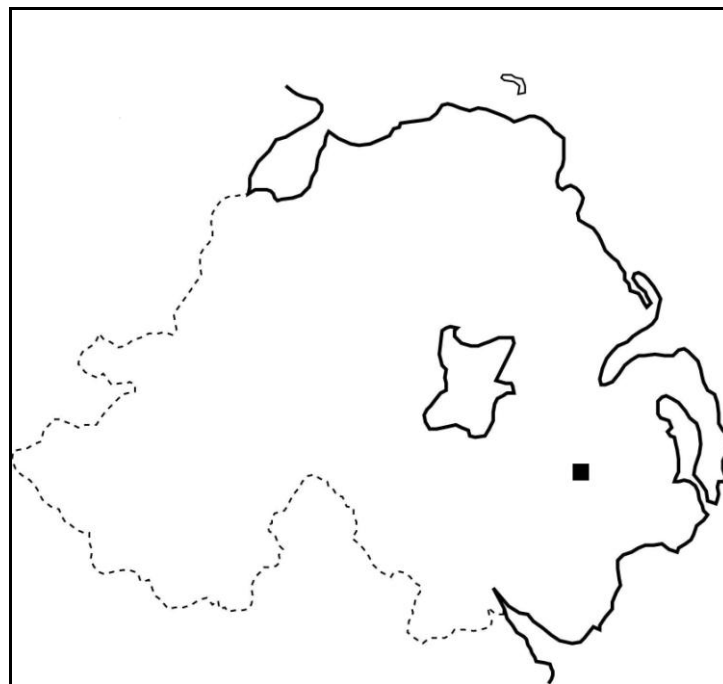
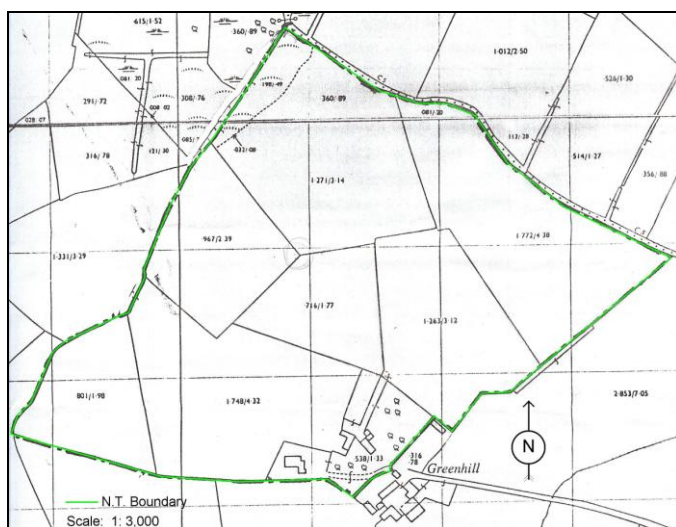


Figure 1: Location map for Greenhill, Annahilt, Co. Down



Reproduced from the map of 2001 by permission of Ordnance Survey of Northern Ireland on behalf of the controller of HMSO © Crown Copyright The National Trust

Figure 2a: Boundary Map Greenhill, Annahilt

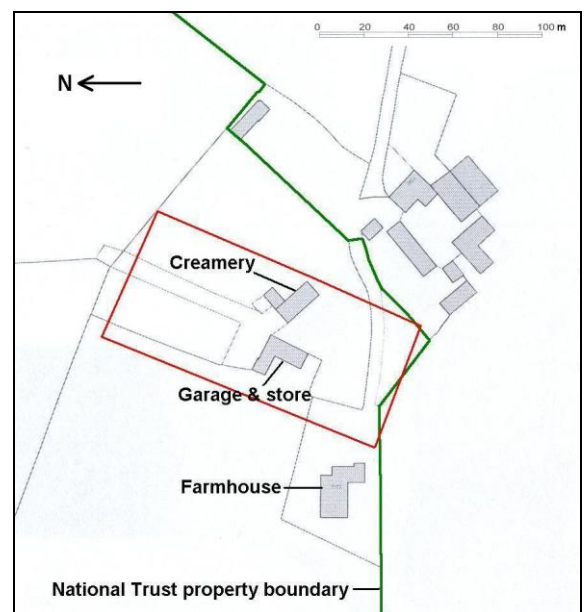


Figure 2b: Site map of area surveyed



Figure 3: Aerial photograph of Greenhill Site *Crown Copyright*

1.2 Aims

In order to enhance the archaeological record of this site, the aims of this survey were to produce an accurate plan and elevation drawings of the buildings, carry out a photographic survey and complete a Condition and Management Survey of the Archaeological Resource (CAMSAR) record form. This was to be compiled into a report and submitted to the Environment and Heritage Service (EHS) and The National Trust.



Figure 4: View of Greenhill looking to the west

2. Introduction

2.1 Background

Surveys were carried out on Saturday 29 July and Saturday 26 August 2006 at Greenhill, Annahilt, County Down by members of the Ulster Archaeological Society.

The decision to instigate a programme of surveys had been taken by the committee of the Society to extend an opportunity to members wishing to participate in practical surveys of archaeological monuments not previously recorded. This was facilitated by a bequest to the society from the late Dr Ann Hamlin, from which the items of survey equipment were purchased.

During discussions with Mr Malachy Conway, Survey Archaeologist of The National Trust in Northern Ireland, it was noted that many archaeological sites on National Trust property had not been subject to a detailed archaeological survey. It was therefore agreed that members of the Society would undertake a survey of a selection of National Trust sites, and the outbuildings at Greenhill were among the sites chosen. The original farmhouse was demolished by its owner after the Second World War and a new house constructed at the western border of the site. This modern building was not surveyed

2.2 Cartographic evidence

Some of the earliest maps to document this site are to be found in the Downshire records of the Kilwarlin Estate dating from 1640 (PRONI: D/671/M8/1/1; D/671/M8/17/1; D/671/M8/50/1).

The 1800 and 1803 Kilwarlin estate maps show the land currently occupied by Greenhill as belonging to “*W.^{dw} Wil.^m Thom.^s & Jam.^s Erwin*”(PRONI D/671/M8/17/1). Buildings recognisable as Greenhill appear on the later 1830 and 1856 maps, and so we can conclude that the Erwin or Irvine¹ family must have built the original Greenhill farm and outbuildings between 1800 and 1830. It is also apparent that during this period the boundary between the Erwin land and their neighbours

¹ In the early 19th century literacy skills were poor, and the names Erwin and Irvine were often used interchangeably.

the Garrets has moved slightly in favour of the Erwins (see figures 11a and 11b on page 10) – possibly to facilitate building of the original farmhouse.



Figure 5: 1640 Map of Kilwarlin with Bally Lentaugh outlined (PRONI D/671/M8/1/1)



Figure 6: Detail of Bally Lentaugh from figure 5 above



Figure 7: 1800 Estate Map of Ballylntogh (PRONI D/671/M8/17/1)

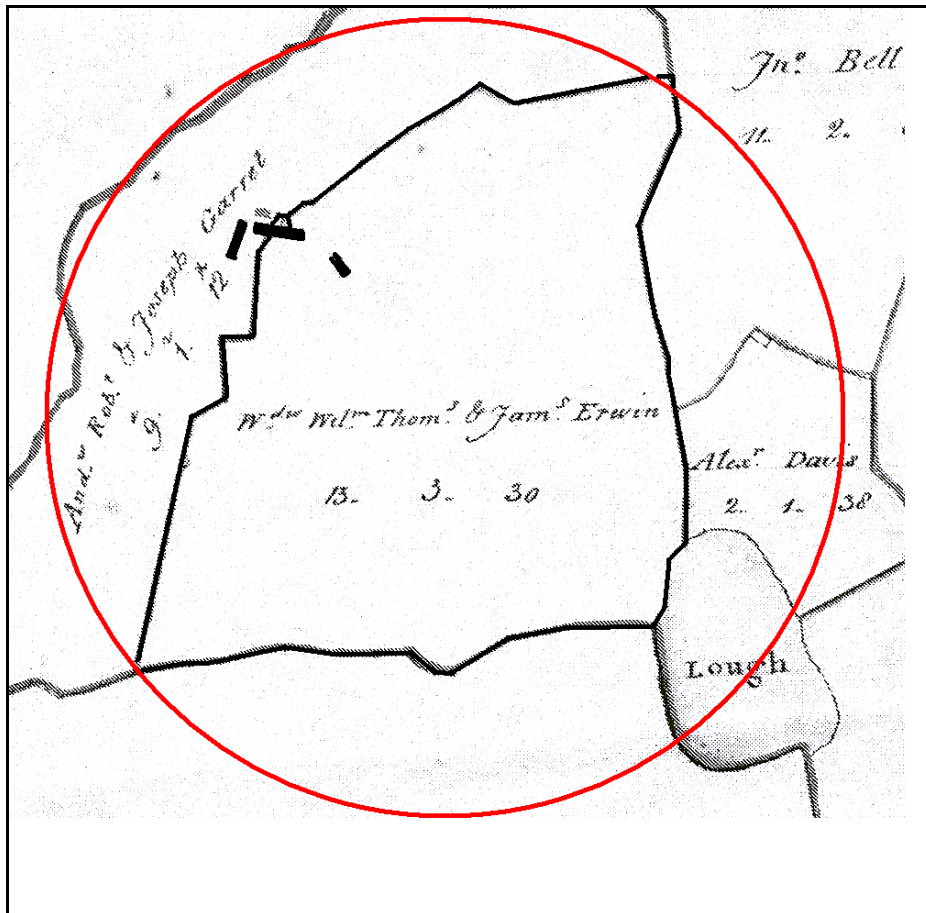


Figure 8: Detail from figure 7 to show farm buildings



Figure 9: 1803 Map of Ballylintogh (PRONI D/671/M8/40/1)

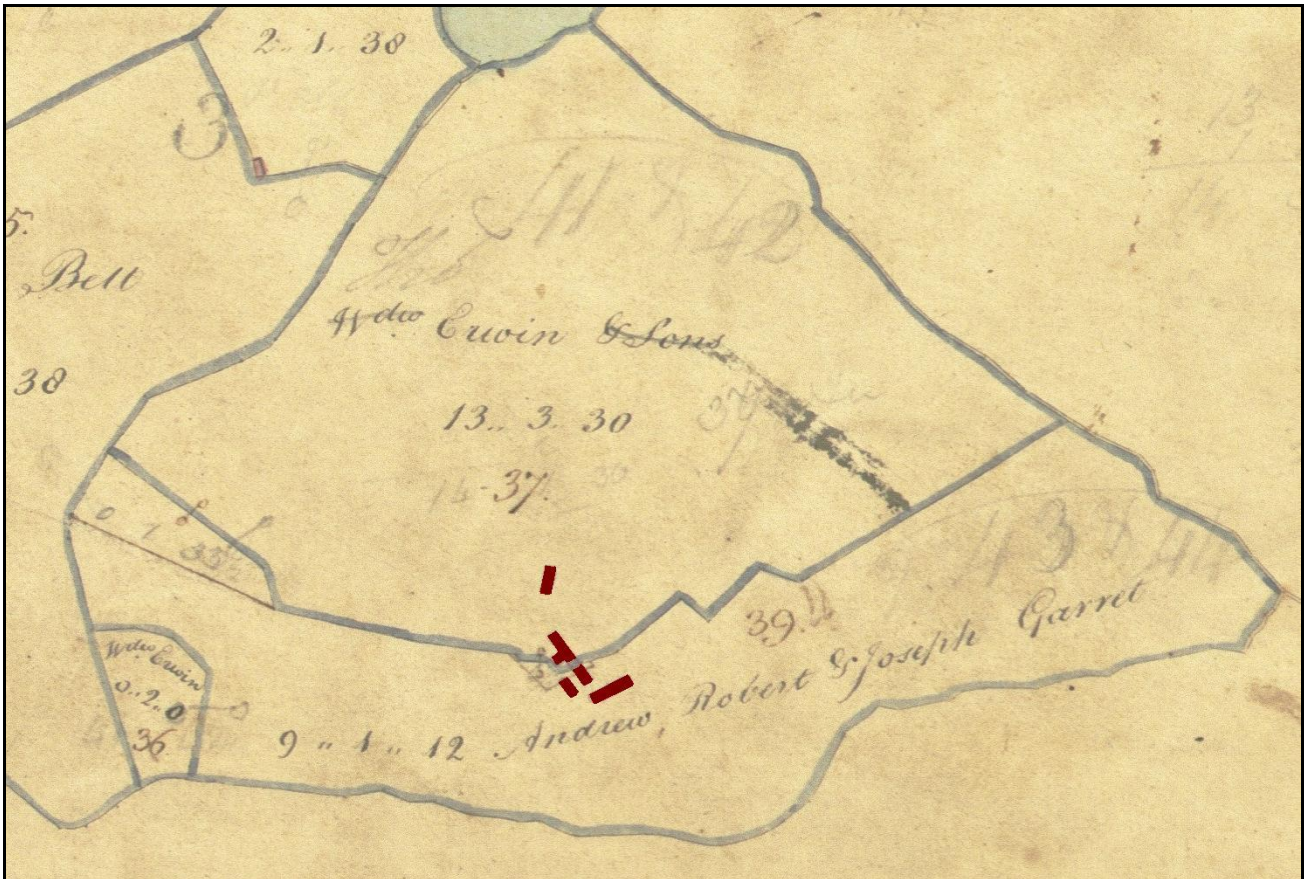


Figure 10: Detail from figure 9

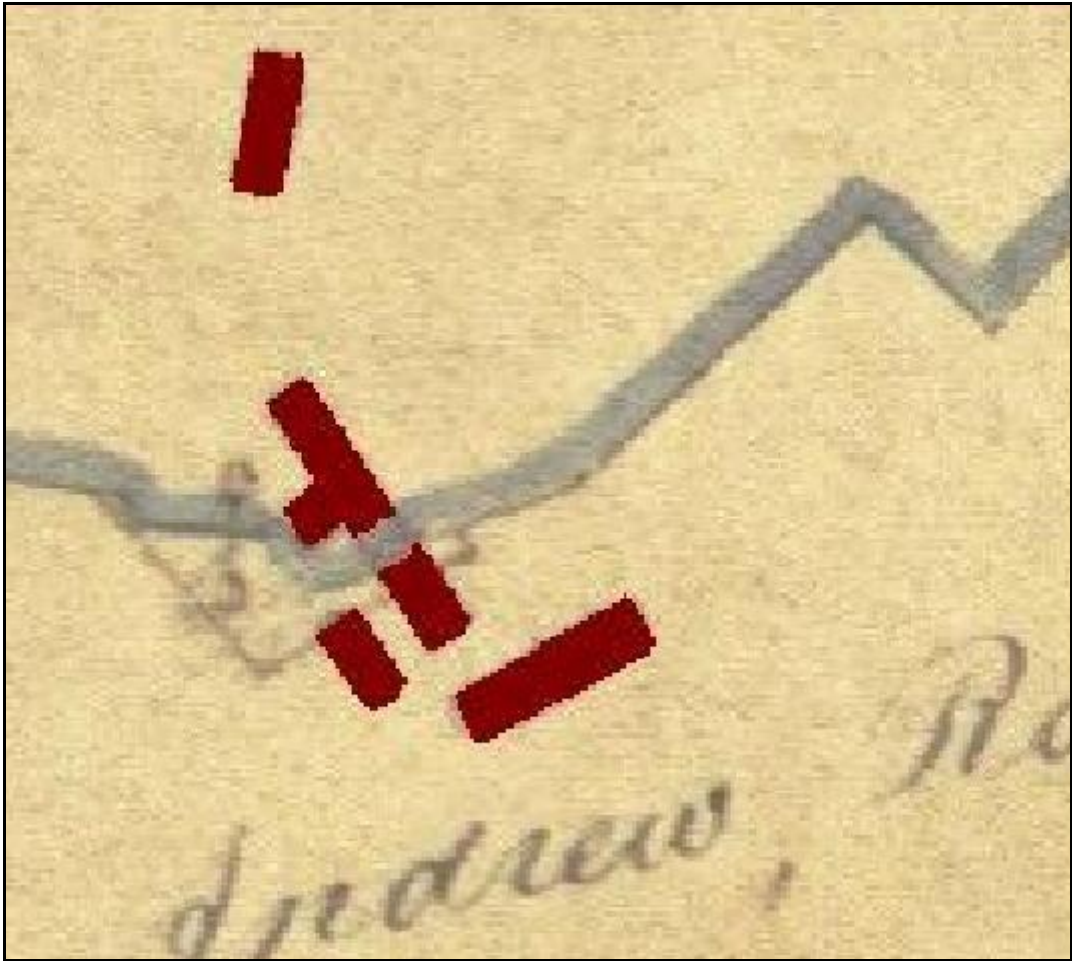


Figure 11a: Magnified detail from figure 10 showing original Greenhill farmhouse



Figure 11b: Modern map showing new property boundary after 1803 and current buildings



Figure 12: 1856 Estate Map of Ballylintagh (PRONI D/671/M8/50/1)



Figure 13: Detail from figure 12 with Greenhill outlined in red

Greenhill was previously recorded by the Ordnance Survey of Ireland, which subsequently became the Ordnance Survey of Northern Ireland. The first cartographic survey was carried out in 1833 (see figure 14 below).

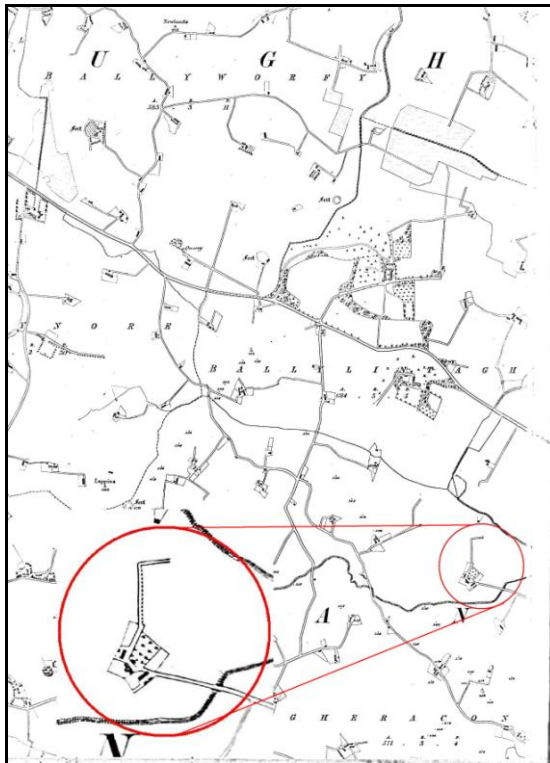


Figure 14: 1st Edition 1833 *Ordnance Survey*

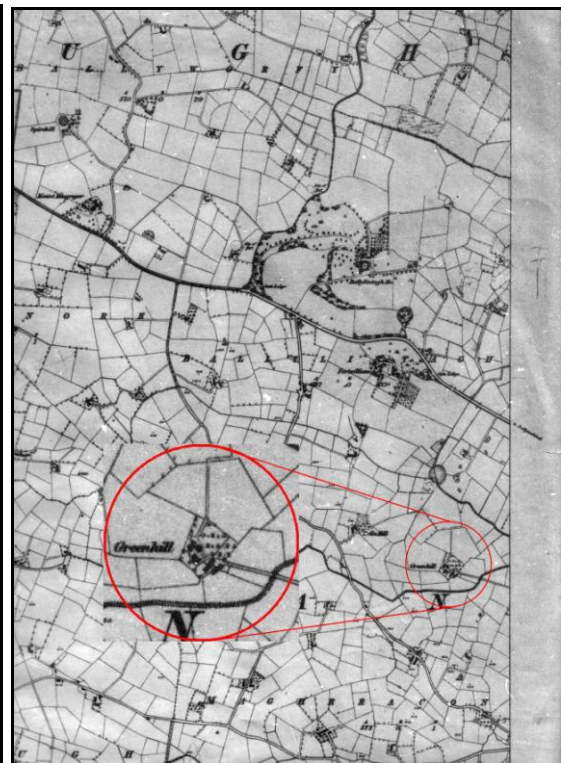


Figure 15: 2nd Edition 1859 *Ordnance Survey*

The Greenhill site appears on the 1833 map as a complex of unnamed buildings with an orchard. The name Greenhill does not appear until the second edition map of 1859, and again on the third edition in 1903. The development of the site, as reflected in these maps, will be discussed in Section 4.



Figure 16: 3rd edition 1903 *Ordnance Survey*

2.3 Archiving

Copies of this report have been deposited with EHS and the National Trust. All site records are archived with the Honorary Archivist of the Ulster Archaeological Society.

2.4 Credits and Acknowledgements

The survey was led by Dr Harry Welsh and other members of the survey team taking part in the survey were: Billy Dunlop, June Easton, Tom Fairley, Ian Gillespie, Ian McCauley, Ken Pullin, George Rutherford and Janey Sproule. June Easton and Anne MacDermott assisted with background research. June Easton also prepared the plans and elevations.

Maura Pringle, School of Geography QUB, provided cartographic advice. Dr Ian Meighan provided geological identification of the standing stone. I am grateful to Mr Robin Walker for allowing access to the remains of a horse gin at his property at Craig-E-Brae, Kells Ballymena. I am grateful to Mr Malachy Conway, Survey Archaeologist of the National Trust, who worked closely with the survey team in choosing the site and facilitating access.

I am indebted to Mr Wallace Beatty, resident of Annahilt for over ninety years, for sharing his experiences of early 20th century farming, as well as genealogical information pertaining to the former residents of Greenhill. Margaret Poots of Annahilt and Rosemary McCormick of Drumbo provided invaluable background information regarding the Matthews family. Paula Ardron-Gemmel conducted genealogical research in Freckleton, Lancashire. Further thanks are due to Dr Harry Welsh for reading and correcting earlier drafts of this report.

3. Survey

3.1 Methodology

It was decided that the survey would take the form of the production of plan and elevation drawings, accompanied by a photographic survey and the completion of a CAMSAR form. A report was compiled using the information obtained from these sources in addition to background documentary material.

3.2 Production of plan and elevation drawings

Plan and elevation drawings were completed, using data obtained from a field survey. Measurements were obtained by using the society's *Leica Sprinter 100* electronic measuring device. Sketch plans at 1: 100 scale were completed on site by recording these measurements on to drafting film secured to a plane table and backing up the data in a field notebook for subsequent reference. Field plans were later transferred to a computer-based format for publication.

3.2.1 Site plans

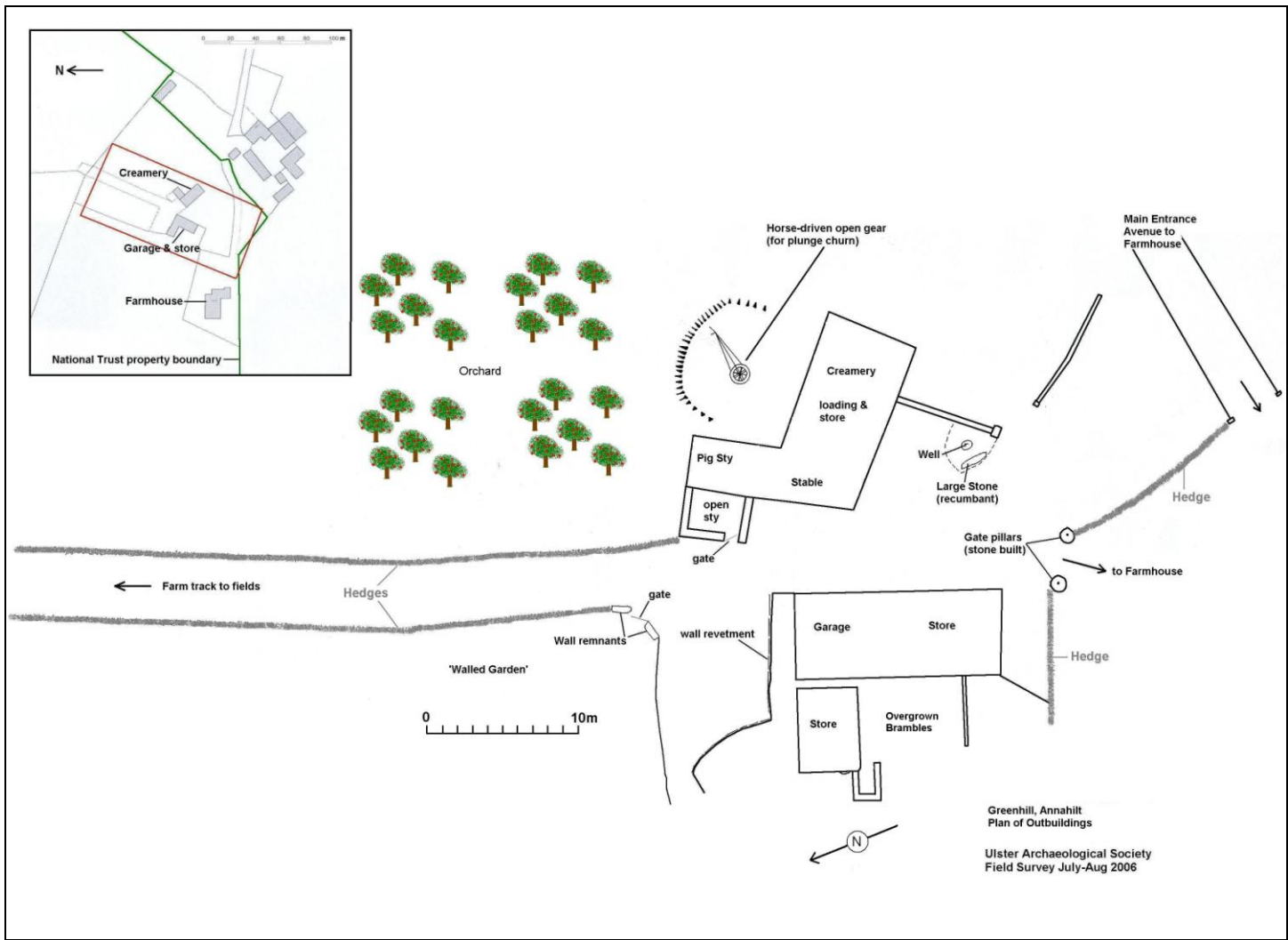


Figure 17: Site plan of Greenhill

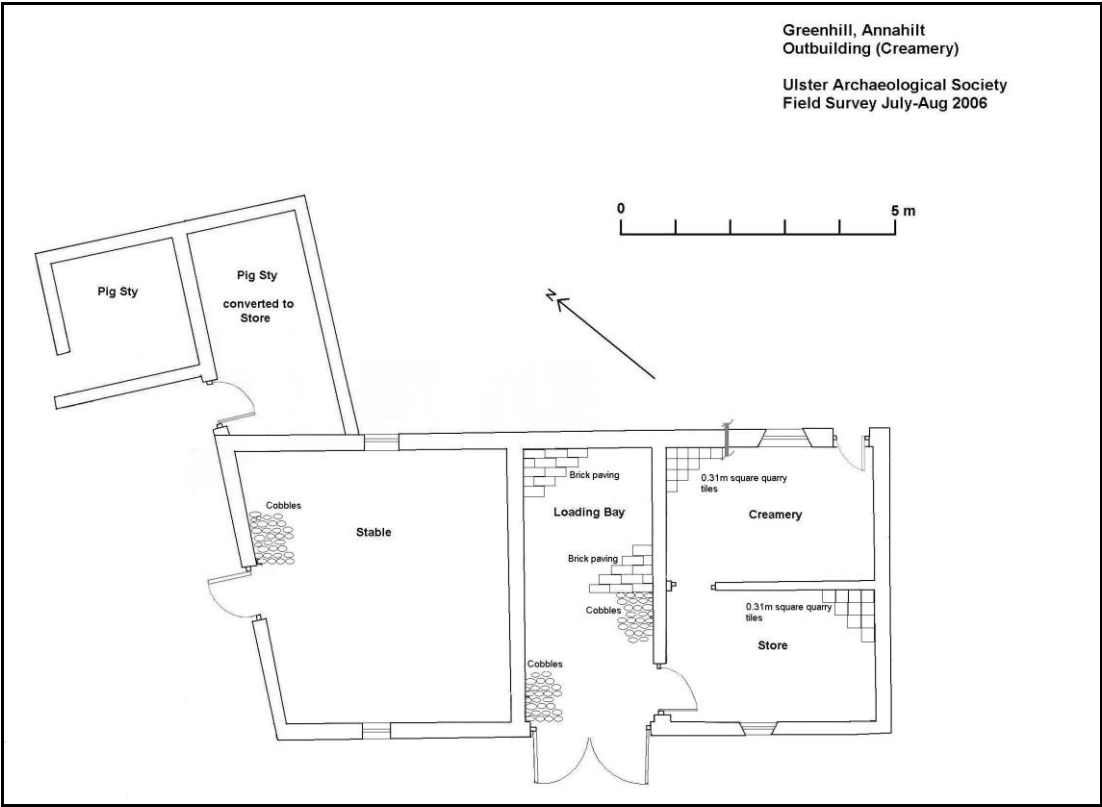


Figure 18: Site plan of creamery building

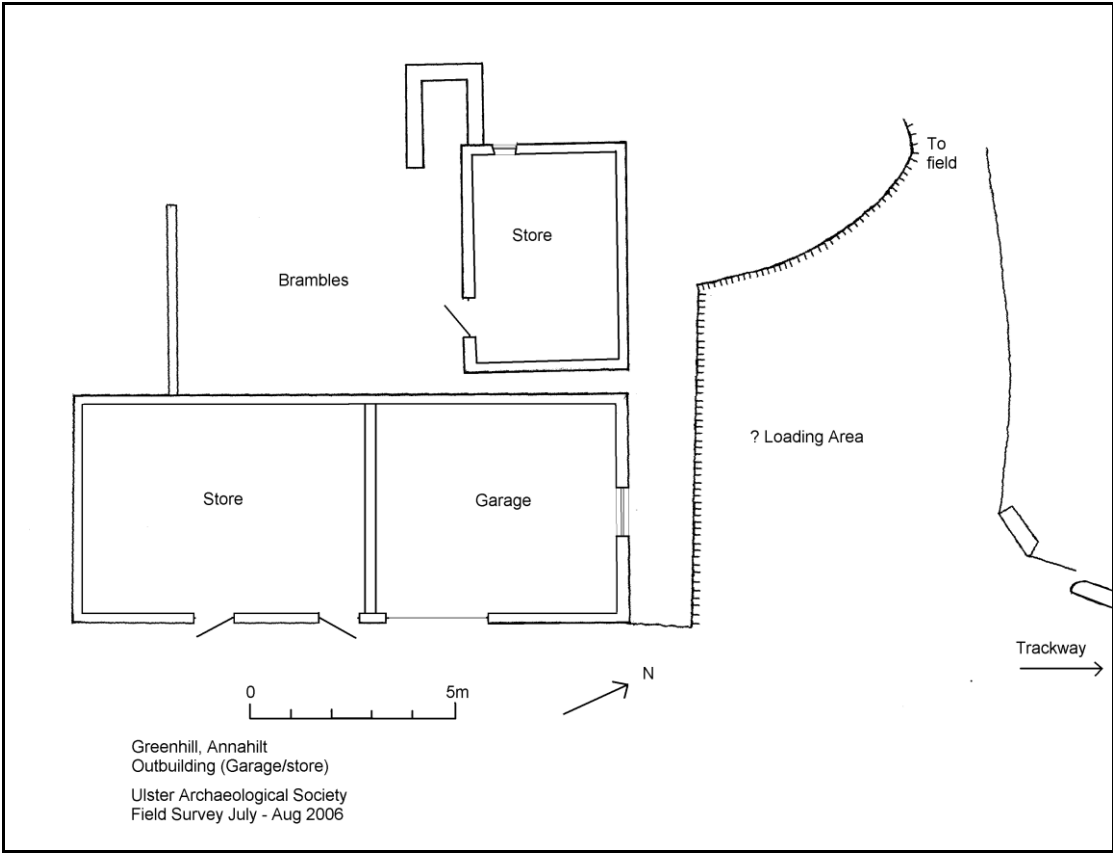


Figure 19: Site plan of garage/store

3.2.2 Elevations

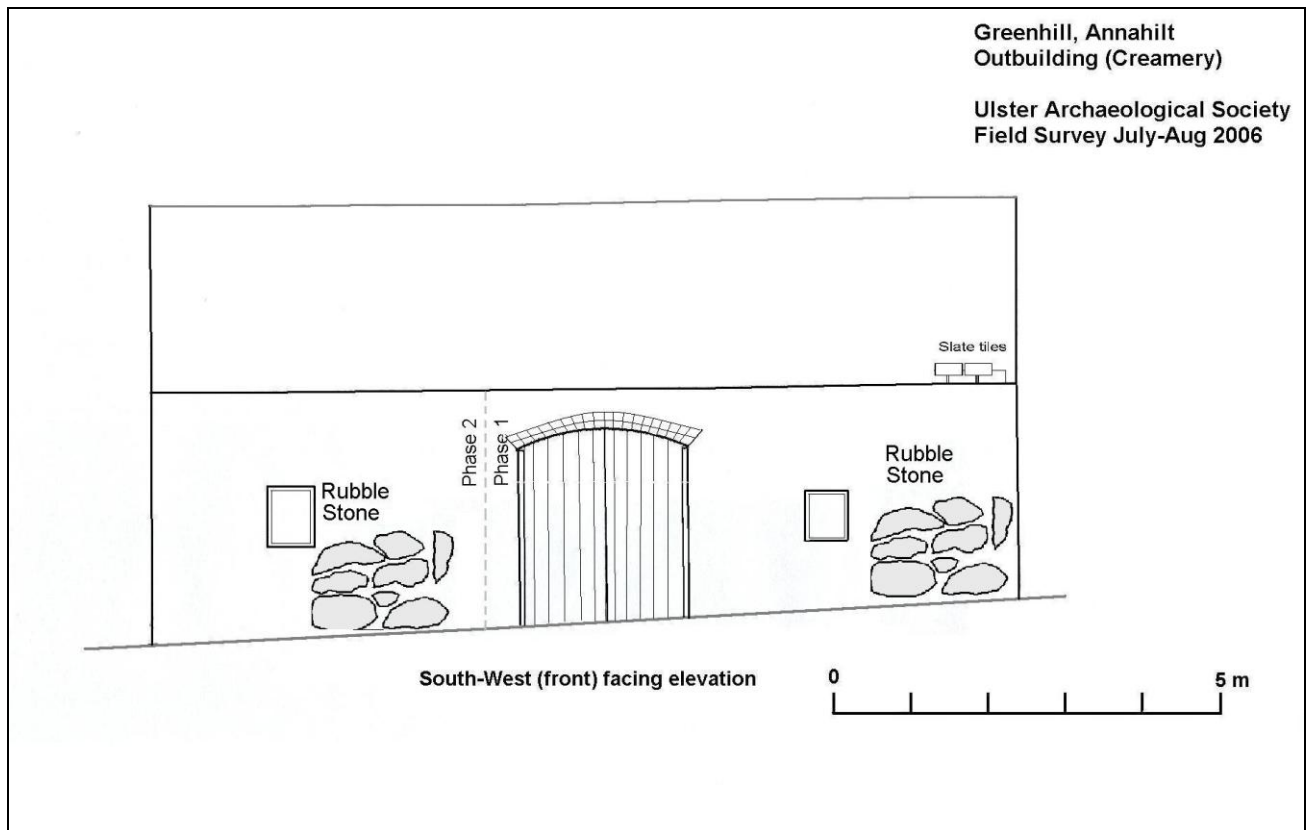


Figure 20: South west elevation of creamery

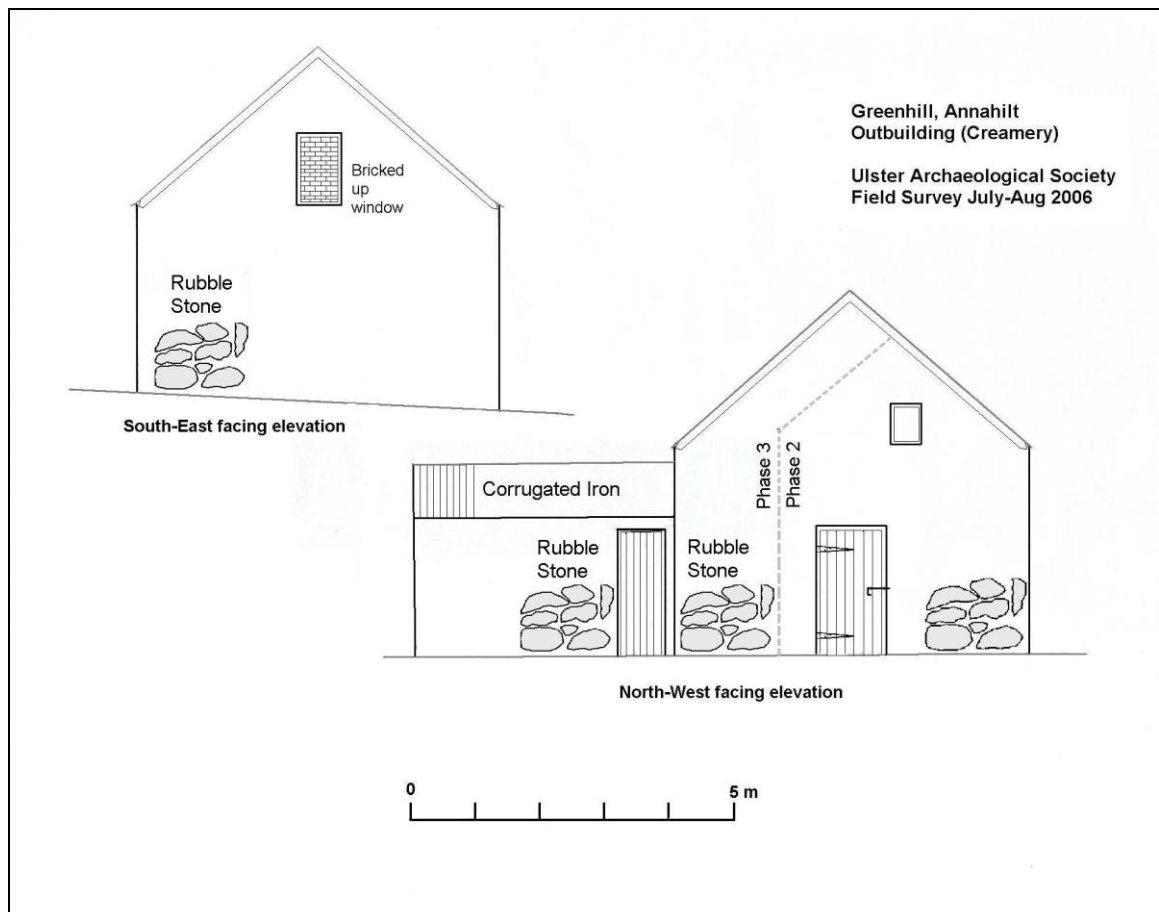


Figure 21: South east & north west elevations of creamery

3.2.2 Elevations (continued)

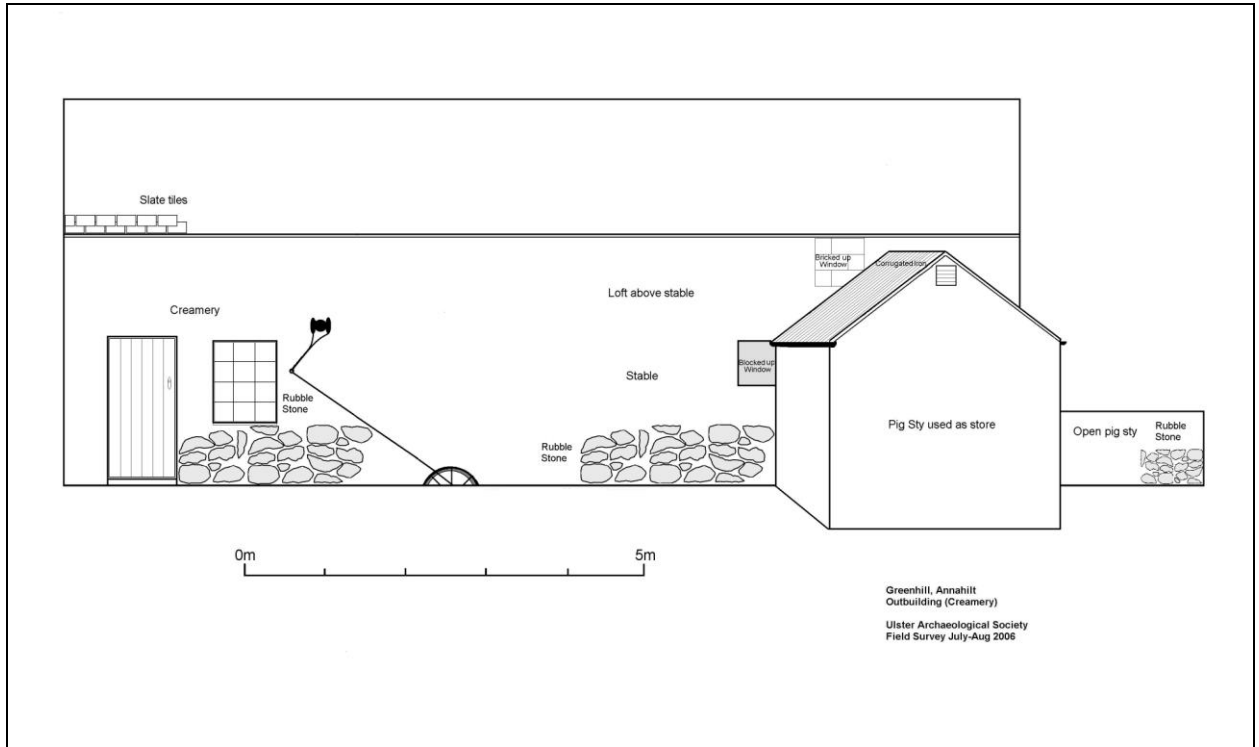


Figure 22: North east (rear) elevation of creamery

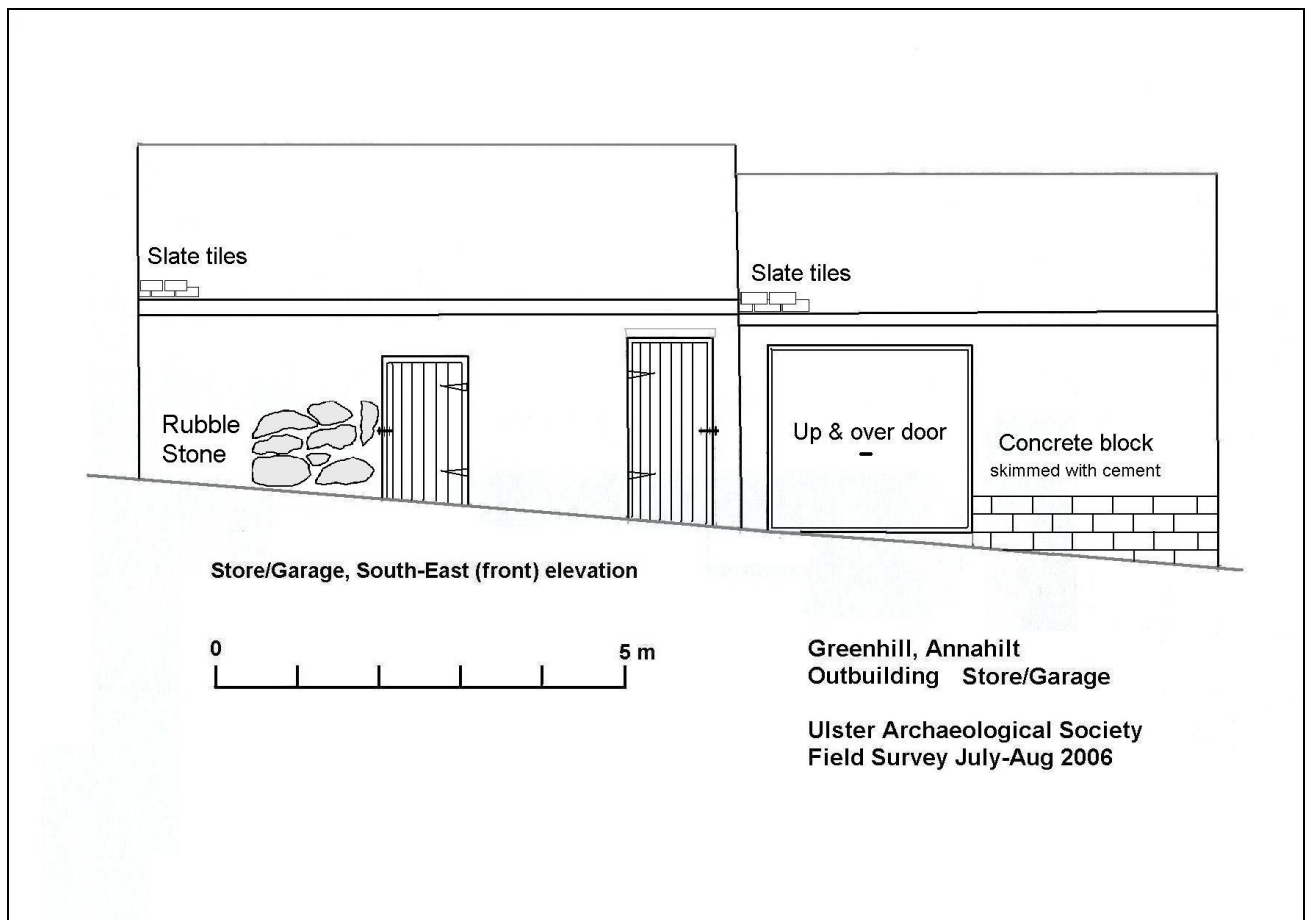


Figure 23: South east (front) elevation of store/garage

3.3 Description of the surviving buildings

3.3.1 Creamery Building



Figure 24: Creamery looking to the west



Figure 25: Creamery & sty looking to the south

The creamery building is single story aligned north west – south east. There is a pitched modern-tiled roof. It is possible to infer, by examining wall scars, up to four phases of construction:

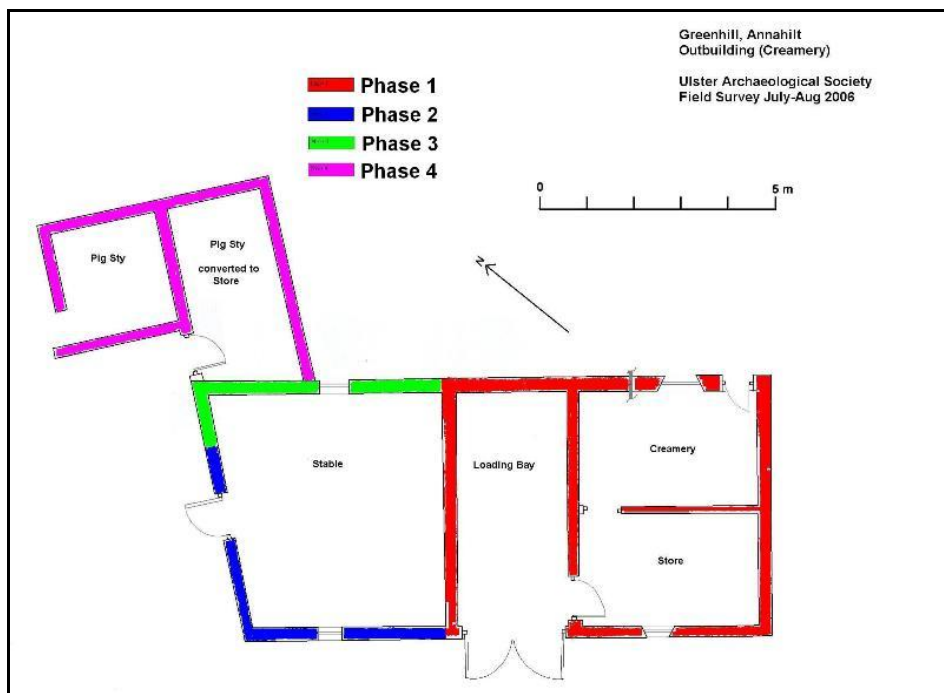


Figure 26: Phases of Creamery Building

The building is constructed of rubble stone which appears to be local in origin with a red brick trim to the windows and doorways. The ridge tiles bear the legend “C.DAVIDSON & CO MANUFRS HAWARDEN FLINTSHIRE”. It is divided, by masonry walls, into three distinct compartments at ground floor level.

The north west end of the building is furnished with stalls and a manger indicating that it had been used as a stable. Timber was used to form the stalls and also support a loft above this part of the building. The original timbers of the stalls are rotted and in very poor condition. The roof timbers have recently been replaced. The floor is cobbled. Access to the stables is via a door in the north west gable.

Access to the earliest, south east, phase is via wooden double doors which open from the courtyard into a loading bay which is floored with cobbles at the front and red brick paving to the rear. A door connects the loading bay with a store, leading into the creamery. The store and creamery are floored with square quarry tiles measuring 31cm x 31 cm.

The walls of the creamery are painted with lime mortar. The drive shaft from the horse gin mechanism enters the creamery and drives a reciprocating beam which would have been attached to, and powered, the plunge churn handles.

There is access from the loading bay to a loft running above both the stable and the creamery.

A later phase, attached at the north west corner of the building, is a pig sty latterly used as a store. The sty is constructed of rubble stone and has a corrugated iron roof and red brick paving. It had originally connected with an outdoor rubble stone pen although the adjoining door has subsequently been blocked.

3.3.2 Store and garage



Figure 27: Store/garage looking to the west



Figure 28 Store/garage looking to the south west

The store/garage complex comprises two rubble stone stores and a dressed concrete garage with a modern 'up & over' door. It is located on the west side of the courtyard. A farm track leading to fields exits the courtyard between the creamery and the garage in a north easterly direction.

3.3.3 Horse Gin

The horse-powered mechanism at Greenhill consists of a cast iron turntable platform which connects via cogs on its under surface through an underground series of gears and rods to a reciprocating rocker arm within the creamery building. The horse would have been tethered to a 3 metre long spar attached to the platform and was encouraged to walk round a circular track of 6 metre diameter. I have calculated that one revolution by the horse is geared up to 25 excursions of the churn's rocker arm beam. A diagram of the mechanism can be seen at Appendix 3.

The cast iron platform is stamped with the manufacturer's name 'J. Scott Belfast'.



Figure 29: Horse gin



Figure 30: Horse gin detail

3.4 Standing Stone

Situated 150m north west of Greenhill is a standing stone (J29085589; SMR Number: DOW 021:081):

Set in a field boundary, close to the junction of three fields. This stone stands 1.34m high and measures 0.62m across at the base, narrowing to 0.22m at the top. It averages 0.1m in depth and is orientated NE-SW. The top of the stone slopes sharply and looks as if it has been broken off. Set in the top is a semi-circular notch, running completely through the stone, which is clearly deliberately made and looks as though it would have formed a complete circle if the top of the stone was not broken. This notch is 3cm in diam., and suggests the stone may have been used at some point as a gatepost. This stone is probably a genuine antiquity, although it may have been moved to its current location at a more recent period. (EHS sites & monuments record DOW 021:081)



Figure 31: Standing stone

The stone has been identified as greywacke, a sedimentary rock abundant in Co Down.

3.5 Photographic archive

A photographic record of the site was made using a *Nikon Coolpix S1* 6 megapixel digital camera and a photographic record sheet was employed, corresponding to photographs taken during the site surveys on 29th July and 26th August 2006. The archive has been compiled in jpeg format and saved to compact disc.

3.6 Completion of CAMSAR form

A Condition and Management Survey of the Archaeological Resource (CAMSAR) form was completed by the survey team on 29 July 2006 and is reproduced in appendix 1 below. As far as is known, this is the first occasion on which this type of record form has been completed for the site.

4. Discussion

4.1 Greenhill

The name Annahilt (alternative spelling Anahilt) can be translated from the Gaelic as ‘marsh of the doe’. Annahilt developed around a crossroads on the road between Ballynahinch and Hillsborough. This part of County Down is characterised by rich pastureland and is a site of some antiquity. Rathes are found in all eleven townlands of the parish, indicating that this area has been recognised as good farmland for many centuries.

Greenhill is located south of Annahilt village in the townland of Ballylintagh, which can be translated from the Gaelic to mean ‘townland of the flax pools’.

Greenhill comprises a complex of farm outbuildings adjacent to a modern house. The property boundary also encloses seven fields (as shown in Figure 2a), but neither the farmhouse nor the fields are included in the current survey.

The original farmhouse has been demolished, although some details can be obtained from the 1901 census (PRONI MIC/354/3/46). The dwelling had a thatched roof with 7 occupied rooms and 6 windows on the frontage. There were 10 outhouses comprising: 1 stable, 1 cow house, 1 calf house, 2 pig pens, 1 fowl house, 1 boiling house (used for preparing animal feed), 1 barn and 2 sheds.

A further description is found in a Probate document dated 1935 (PRONI. Matthews, Sarah Jane; Probate: Belfast; 26th April 1935): ‘One storey slated dwelling – home and offices. Lands under pasture, part hilly and marshy approached by a crooked lane from the County road in a backward district.’ Greenhill was valued at £450.0s 0d.

The surviving farm buildings comprise a main building (referred to as the creamery/stables) separated from two out buildings (referred to as garage/store) by a small courtyard and farm trackway. The buildings are leased to a local farmer who also uses the farm trackway to access fields beyond.

The most notable feature of Greenhill is the substantial remains of a horse gin, or horse-powered engine, situated on a level platform to the north of the creamery. The drive from this mill enters the creamery building and powers a reciprocating rocking arm. This has been interpreted as the mechanism to drive two mechanical plunge churns. The horse gin is described in more detail in paragraph 3.3.3 and Appendix 3.

The presence of a horse driven churn at Greenhill would suggest that the farm was involved in butter making on a relatively large scale. Oral evidence from a neighbouring farmer, recalling farming in the early 20th century, was that large scale churning was very unusual in Annahilt, and he had no knowledge of any horse driven churns in the vicinity (W. Beatty, personal communication 8th August 2007). He added that most farms would have had a thresher powered by a horse gin (also referred to as a horse walk) but that these were broken up and removed with the arrival of steam driven threshers and, subsequently, diesel tractors in the early 20th century. The horse gin at Greenhill has not been removed, possibly because it has not been used as a working farm for the last few decades

4.2 Nineteenth Century Farming in County Down

The County Down directory of 1886 gives a good description of the types of farming taking place in the County in the mid to late 19th century. There is evidence that butter making was commonplace:

In 1885 there were 31,301 horses, 1,483 donkeys and 119 mules in this area. There were also 54,183 milch cows. A considerable amount of butter was made. 'Farmers were disposed to take advantage of the best dairying methods. In 1886 a creamery was established in Banbridge' (Bassett 1886).

4.3 Annahilt in the nineteenth century

The Ordnance survey memoirs of Co Down (Bennett 1834) contain an analysis of the Townlands of Annahilt prepared by Lieutenant G.F.W. Bordes in 1834. Ballylintough (original spelling) townland contained:

...73 inhabited houses, 1 uninhabited, occupied by 73 families; 43 employed in agriculture, 21 in trade and manufacture, 9 other families; 420 total inhabitants, 206 males, 214 females, 98 males over 20 years, 1 employed in 1st class agriculture, 46 in 2nd class, 13 in 3rd class, 20 in manufacture, 6 in retail trade and handicraft, 1 wholesale, capitalist, clergy or clerk, 1 non-agricultural labourer, 5 other occupations; servants: 5 males over 20 years, 2 under 20, 18 female servants.

The proprietor was Lord Downshire, the agent Mr Reilly of Hillsborough. Of the 42 landholders there are only two large farms recorded, 74 and 38 acres. The general size of the holdings is from 2 to 14 acres Irish. The leases cost 16s 0d for old leases, 25s to 30s for new leases.

During the first half of the 19th century, the production of milk for butter was of greater importance in Ireland than beef. Until the late 1880s all Irish butter was produced on individual farms on a small scale. In the north a plunge churn was used, whilst in the south a barrel churn was more usual. Demand for Irish butter was such that the decade 1867-1876 became one of considerable prosperity. Meanwhile, continental creameries were developing co-operatives. As late as 1894, not one co-operative creamery existed north of the Boyne. By 1899 eight were established in County Antrim and two in County Down. By 1902 there were one hundred and one co-operative societies in Northern Ireland, most of which were creameries. (Armstrong 1989).

Other features of Greenhill include a capped well located in the small courtyard in front of the creamery building. There were logistical difficulties supplying mains water to the farm and so well water was relied upon. A second, more modern, well was sunk somewhere in the fields to the north of Greenhill (Beatty W., personal communication 8th August 2007).

Gardens north of the creamery are laid out in apple orchards. Orchards appear in this location on both the 1833 and 1859 Ordnance Survey maps.

4.4 Eighteenth and nineteenth century animal-powered farm machinery

One of the earliest industrial – as distinct from purely tractive – uses of animal power in Ireland was in the breaking or bruising of flax before scutching, using an edge runner stone dragged by a horse or donkey (McCutcheon 1980). A similar technique was widely used in the numerous bark mills in which a circular shed was spread with raw bark to be crushed, again using a horse drawn edge-

runner stone, to extract tannin for the tanning industry. Experimentation with water-powered threshing machines in Ireland had started about 1800:

Mr Christy in County Down was ‘the first in this kingdom’ to have one built on a model he had seen in Scotland in 1796, and Mr Ward of Bangor in the same county had one as early as 1802. (Gailey 1984).

None of the other northern Irish county surveys commissioned by the Royal Dublin Society in the early 1800s mention threshing machines, and it is obvious from the concentration of references in the Ordnance Survey memoirs of the 1830s in mainly east Ulster parishes that the innovation was only then taking root at prosperous farmer level. Development of the small thresher with circular open-air horse walk suited the needs of the small Ulster farm where capital was limited although it was not until after 1855, when there was a general shift from tillage to pasture in northern Irish agriculture, that the widespread installation of threshing machines was seen. Exploitation of this technology for churning was occasionally achieved by means of a secondary drive taken off from the thresher to a dairy placed end-to-end with the barn.

4.5 Manufacture of Agricultural Implements in Northern Ireland

In 1850 there were 3 makers of agricultural implements of repute in Belfast: Richard Robinson, Robert Gray and John Scott.

The implements made by these firms were of a high standard. They were recognised for their strength, beauty of design and finish and gained the admiration of all judges at the annual agricultural shows.

Throughout the next decade, the industry flourished in Belfast. In 1872 the manufacturers of Belfast were referred to as the “implement makers of Ireland”. After 1872 the industry declined in importance, due to competition from Britain and U.S.A.

The Greenhill horse gin was manufactured by John Scott at his foundry in May Street, Belfast. The first listing of the business ‘Iron & Brass Foundry and Machine Maker’ is in Henderson’s Belfast Directory of 1850 at number 6 May Street. There is no listing in Pigot’s 1824 Directory of Ireland.

In the 1852 Belfast Directory the address is given as 6 ½ May Street, and by 1858 the address has changed to 42 May Street. In 1868 the business is described as ‘Millwright & Engineer’. The address of the Foundry is now 28 May Street, and Mr Scott’s residence is given as 59 Victoria Terrace. By 1870 the Foundry is at 30 May Street and a James Parker is listed as ‘Manager’. There are no later references to a foundry in May Street.

John Scott was producing high quality mill machinery during the ‘golden period’ of the 1850s and 60s as described above. It is likely that the horse gin at Greenhill was installed during this time. Unfortunately there are no records or catalogues on file at the Public Record Office to cross reference.

4.6 Further research into the horse gin in the United Kingdom and Ireland

We have identified a number of references to similar horse gins around the UK. Until recently there was a working example of a horse-driven churn at the Mellon Homestead at the Ulster American Folk Park in Co Tyrone, however this has recently fallen into disuse.

Members of the survey team visited the remains of a horse walk used for churning at a location called Craig-E-Brae ('Craig on the Hill') near Kells, Ballymena. This farmstead was built by the current owner's Great Grandfather in the mid 1800's.



Figure 32: Craig-E-Brae Horse Gin

His mother was able to give a first hand account of working with their horses on the horse walk. She recalls sleeping in a loft above the dairy on a mattress of horse hair or straw (R. Walker personal communication 31st March 2007).

The remains of a horse gin also manufactured by J. Scott of Belfast can be seen at Tully Castle near Derrygonnelly Co. Fermanagh (photographs courtesy of Dr H. Welsh).



Figure 33: Horse gin remains at Tully Castle

A circular horse driven threshing machine features in the film "The Island in the Current" (National Screen and Sound Archive of Wales) located on the Welsh Island of Bardsey. This is an amateur documentary film featuring the self-sufficient life of the islanders in the early fifties made by E.E. Pritchard. A video clip of the horse gin can be seen at: <http://www.gtj.org.uk/en/filmclip/30371>.

Lecale Historical Society's review of 2003 refers to a pony-walk at Myra Castle near Strangford which at that time was being used for the churning of butter (Lecale Historical Society).

A horse gin has been excavated and restored at Wester Kittochside in Scotland. It had been used to drive farm machinery, such as the winnowing machine in the corn barn which removes the husk from grain, powered via a rotating horizontal axle drive from the gin.



Figure 34: Horse gin at Wester Kittochside

Ambleside Oral History group compiled a series of memoirs from elders in Westmorland and the Lake District which were published in the Westmorland Gazette in 1997 (Renouf 1997). Among the memoirs were references to a horse gin. An old lady could remember the horse gin that most fell farms had:

We used to thresh our own corn. We had one of those rings, they called them a gin ring, where you drove the horse round and round; that was our job, the girls could drive the horse, then inside the machinery you put the sheaves and it threshed them and separated the corn and the chaff and we used to hate it. You got so tired going round and round, 'cos the old horses knew us, and they wouldn't go on - so they used to open the door and shout at the horses to make them set off.

But there's an easy way of doing everything, as this old farmhand remembered with a chuckle:

I used to do all the churning with the horse; you had a big pole, hitch the horse to it, and they had a round ring. Of a fine day you used to have to lead the horse around for about four times, you see, then you used to tie its head just as tight as it could walk nicely round - and then you could sit on't wall and do what you liked, the horse used to keep going round and round. And a very easy way of churning that, oh aye!

5. Recommendations for Further Work

Although the horse gin was commonplace in the late nineteenth and early twentieth centuries there are very few complete examples remaining, and most that do remain are on private land. It would be desirable to restore Greenhill's horse gin as a valuable educational resource. Given that Greenhill's gin mechanism appears to be fully intact it should be relatively simple and inexpensive to restore it to working order.

The timbers and masonry work in the creamery, outhouses and, particularly, the stables are in very poor condition and in need of consolidation. This has already begun, and should be an ongoing process.

The horse gin platform and mechanism are at risk from encroachment by laurel shrub roots. The laurels have recently been cut back although their roots remain a threat. The area to the rear of the store is completely blocked by brambles. Replanting of the orchard has recently taken place.

Further archaeological investigation might include a geophysical survey to establish the location of the original farmhouse.

6. References

- Armstrong D.L. 1989. *An Economic History of Agriculture in N.I. 1850-1900*. Plunkett Foundation for Co-operative Studies, Oxford.
- Bassett, G.H. 1886. *One Hundred Years Ago, County Down, A Guide and Directory*. Antrim: Baird.
- Beatty W., personal communication 8th August 2007.
- Belfast & Ulster Directory. 1852, 1858, 1868, 1870. Belfast.
- Bennett, G.A. 1834. *O.S. Memoirs of Ireland, Parishes of County Down 1833-1838*. Antrim: Baird.
- Environment and Heritage Service. 9th June 1999. *Northern Ireland Sites and Monuments Record*
Available from:
<http://www.ehsni.gov.uk/content-databases-nismrview.htm?monid=7126>
[Cited 26th May 2007]
- Gailey, A. 1984. *Rural Houses of the North of Ireland*. John Edinburgh: Donald.
- Henderson, J.A. 1850. *Belfast Directory*. Belfast 1850.
- Lecale Historical Society. Lecale Review No.2, 2004. Available at:
<http://www.lecalehistory.co.uk/reviewyear200304.htm> Lecale Historical Society 2003
[Cited 26th May 2007]
- McCormick, Rosemary. Personal communication 8th August 2007.
- McCutcheon, W.A. 1980. *The Industrial Archaeology of Northern Ireland*. Belfast: HMSO
- National Screen and Sound Archive of Wales. Item reference: 69: AVHS/0:08:36 - 0:07:40
By kind permission of The National Screen and Sound Archive of Wales, Sydney Pritchard
- Ordnance Survey Maps 6" Series: 1833 1st Ed. Sheet 21; 1859 2nd Ed. Sheet 21; 1903 3rd Ed. Sheet 21
- Pigot & Co. 1824. *Pigot's Commercial Directory of Ireland*. Belfast
- PRONI documents:
Kilwarlin Estate maps: D/671/M8/1/1; D/671/M8/17/1; D/671/M8/40/1; D/671/M8/50/1
1901 Census MIC/354/3/46
Matthews, Sarah Jane; Probate: Belfast; 26th April 1935
- Renouf, J. Ambleside Oral History Group 1997 available at:
<http://www.aohg.org.uk/twww/farm3.html> [Cited 26th May 2007]

Appendix 1. CAMSAR record form

Grid Reference
J2914 5554

Greenhill

NISMR No.	Grid Reference	J2914 5554	Townland	BALLYLINTAGH.
Landuse Cat. 38	Structural Cat.	Site Type FARMYARD	Protection	Altitude 350m
Field Boundaries (e.g. contemporary/intrusive later/owners attitude towards monument i.e. dis/regard)				

Site description/ notes
Farm yard with outbuildings. The site does not include the dwelling house across the lane. Buildings still roofed, but no longer used for agricultural purposes - yard largely grassed over - access to certain parts restricted by brambles.

Landuse			Around Site		Comments
On Site			Previous	Present	
Previous 38	Present 38	% site 75	36	36	FARMYARD & ORCHARD WITH ADJOINING PASTURE
32	32	25			

Fencing Site Fenced? Y N Mixture of split stone, earth walls & stone posts with Condition (e.g. recent/broken) modern herb gates
Type of fence
Distance of fence from edge of monument

Remains	Is the site visible?				Archaeological site?		Survival						Condition					
	1	2	3	4	Y	N	1	2	3	4	5	6	1	2	3	4	5	6
	1				Y		1						1	2				

Comments (e.g. human interference and management) STANDING STONE AT J2908 5589 SHR DOW 021; 081

Surface Problems (e.g. ploughing, trampling, planting, scrub growth: localized/widespread)
Farmer (tenant) HAS ACCESS TO HEAVY TRAFFIC THROUGH FARMYARD WITH VARIOUS MACHINERY AREAS AROUND OUTBUILDINGS OVERGROWN WITH BRAMBLES

Sub-Surface Problems (e.g. rabbits, badgers, subsidence: localized/widespread)

Damage Sustained						Observations
Past		Recent		Future Risk		
Category	Extent	Category	Extent	Category	Extent	
14	2	14	2	14	3	TIMBERS & WALL ARE DECAYING.
30	1	30	1			OVERGROWTH OF BRAMBLES PREVENTS ACCESS

Photographs	Recommendations
-------------	-----------------

Map Evidence			Last Visit	
1st Ed 1833 BUILDINGS SHOWN - NO NAME	2nd Ed 1859 BUILDINGS SHOWN NAMED GREENHILL	3rd Ed 1903 BUILDINGS SHOWN NAMED GREENHILL	Date of last visit	Deteriorated since last visit?

Recorder _____ Date 29/7/2006

Hw/Gr/IG

Appendix 2. Photograph Record Sheet

Greenhill, Annahilt, Co. Down J 2914 5554

Date: 29th July 2006 & 26th August 2006

Film no.	B/W Print	Colour print	Colour slide	Digital image (m.pixels)
				6M

Make and model of camera: Nikon Coolpix S1, 6 megapixel

Frame no	Details
001	Creamery building looking to the north east
002	Creamery building looking to the south
003	Stable & Sty looking to the east
004	East corner of Creamery building
005	Store/garage looking to the north
006	Loading area north of garage
007	Overgrown area behind store
008	Well head in courtyard
009	Recumbent stone at well head
010	Timbers in stable
011	Horse gin & gearing mechanism
012	Reciprocating arm in creamery
013	Horse gin platform
014	Horse gin detail
015	Horse gin gear mechanism
016	Horse gin detail
017	Standing stone (SMR DOW 021:081)
018	Standing stone detail



1. Creamery looking to the north east



2. Creamery looking to the south



3. Stable and sty looking to the east



4. East corner of creamery



5. Store/garage looking to the north



6. Loading area North of garage



7. Overgrown area behind store



8. Well head in courtyard



9. Recumbent stone at well head



10. Timbers in stable



11. Horse gin & gearing mechanism



12. Reciprocating arm in creamery



13. Horse gin platform



14. Horse gin detail



15. Horse gin gear mechanism



16. Horse gin detail

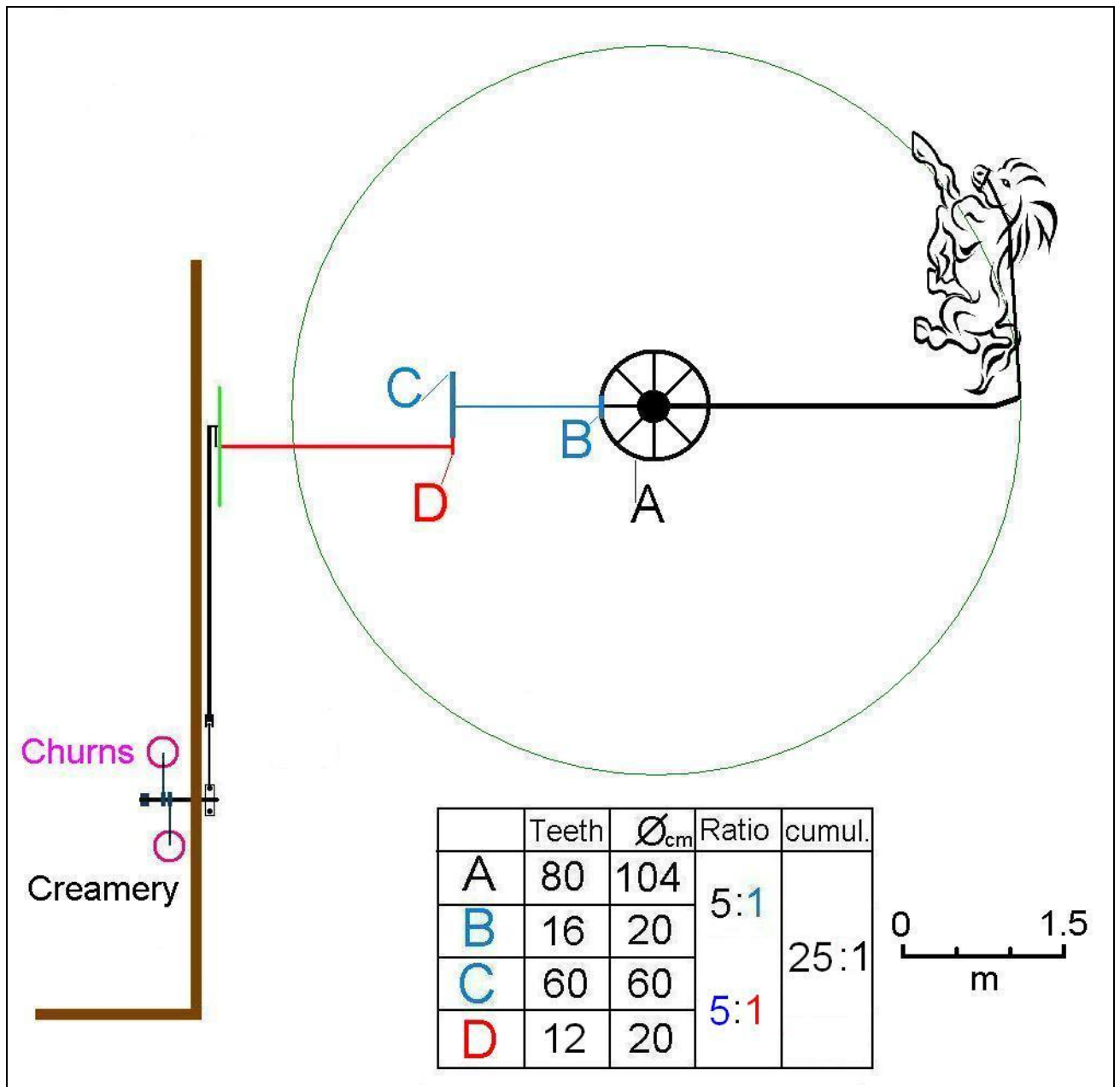


17. Standing stone (SMR DOW 021:081)



18. Standing stone detail

Appendix 3. Mechanics of Horse Gin



This diagram shows the ratios between the four gear wheels A, B, C, and D which translate one revolution of the horse gin into 25 reciprocations of the creamery rocker-arm.