

THE OLD MILL, HOREB, LLANELLI, CARMARTHENSHIRE: STANDING BUILDING RECORDING AND ARCHAEOLOGICAL WATCHING BRIEF



Prepared by Dyfed Archaeological Trust
For: Mr and Mrs Mark Evans



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Gan / By

S Ratty

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THE OLD MILL, HOREB, LLANELLI, CARMARTHENSHIRE: STANDING BUILDING RECORDING AND ARCHAEOLOGICAL WATCHING BRIEF

Summary

A planning application was submitted by Mr and Mrs Mark Evans (planning application number S/14324) for the conversion of a derelict former mill known as The Old Mill (PRN 21476 NGR SN 49970568) into a residential dwelling.

Much of the fabric of the mill survives, and given the potential for hitherto unknown archaeological features and deposits being present on the site it was recommended that planning permission be granted on condition that the mill structure was recorded by scaled drawing and photographic survey and that an archaeological watching brief be maintained on all major episodes of earth moving such as topsoil stripping and foundation or service trench cutting.

The results of the archaeological recording suggest that the structure of the mill was constructed in two phases, with the earliest phase being the larger northwest to southeast aligned structure. It was not possible to assign an exact date to the construction phases although map evidence has revealed that both had been completed by the latter part of the 19th century.

The archaeological watching brief revealed two archaeological features, a metalled possible yard surface and a stone lined water channel.

INTRODUCTION

Project Commission

Plans to convert a former mill known as The Old Mill at Horeb, Llanelli, Carmarthenshire (PRN 21476, NGR SN 49770568) into a residential dwelling required a standing building survey and archaeological watching brief to be undertaken. The proposed development site comprises the extant remains of the former mill, and the potential for hitherto unknown buried archaeological features and deposits being present on the site is relatively high. This resulted in the Local Planning Authority's (LPA) archaeological advisor¹ making the recommendation that these archaeological works be carried out as part of the planning process.

In order to comply with the recommendation Dyfed Archaeological Trust formerly Cambria Archaeology Field Services were commissioned by Mr and Mrs Evans to undertake the programme of archaeological works in July 2008.

Scope of the Project

The project was designed to record the extant structure of the Old Mill by means of the production of scaled drawings of the footprint of the building and scaled elevation drawings. An additional aspect of the project was to record any archaeological features or deposits exposed during earth moving operations such as topsoil stripping, foundation and service trench cutting.

Report Outline

This report describes the location of the site along with its archaeological background before summarising the results of the standing building survey and archaeological watching brief and the conclusions based on those results.

Abbreviations

Sites recorded on the Regional Historic Environment Record (HER²) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR).

¹ Dyfed Archaeological Trust Heritage Management Section recommended the condition in a letter dated 11th October 2006.

² Held and managed by Dyfed Archaeological Trust, The Shire Hall, Llandeilo.

THE SITE

Location

The site is located at NGR SN 49970568 and occupies a gentle southeast facing slope adjacent to a minor road through Horeb located to the east of the village of Five Roads c.8km to the north west of Llanelli.

Historic Landscape Development

Map evidence has revealed that The Old Mill, Horeb was in existence in 1842 as it is shown on the Llanelli Parish Tithe Map and Apportionment. The mill formed part of a 32 acre parcel of land known as Melin Newydd, which in turn formed part of a larger holding of 129 acres that was owned by Henry Lucas, with Aaron Jenkins listed as occupier. The mill was recorded as '*mill, garden and waste*' (Tithe, 1842).

The first edition Ordnance Survey 1:10560 map of 1880 shows the mill and its associated millrace and pond. It appears that at this time the mill was known as *Melin-Yr-Afr* (Goat Mill or Mill of the Goat) although it is possible that this refers to a now vanished structure located across the road and to the southeast of the proposed development site. However, it is possible that this was once the associated millhouse of the Old Mill although it is not possible to be certain. Further structures appear to be located adjacent to the mill although their function it is not clear from the cartographic evidence (OS, 1915).

The second edition Ordnance Survey 1:10560 map of 1915 records the Old Mill as *Felin Newydd* (New Mill) and labels it as a corn mill. The possible millhouse to the southeast of the mill along with the structures depicted as adjacent to the main mill on the first edition are no longer present. The property, now known as Felin Newydd is also present although it is not a named structure.

The Wider Landscape

A search of the regional HER revealed that in addition to the former mill (PRN 21476) a further eight known archaeological sites are located in close proximity.

PRN	NGR	Site Name	Type	Period
10974	SN49800580	Glynkelen	Settlement	Medieval
16300	SN49820565	Capel Horeb	Chapel	Post Medieval
20792	SN50080528	Eclipse Brick Works; Blackthorn	Brick Works	Post Medieval
21480	SN49900567	Greenhill	Cottage	Post Medieval
21486	SN50200580	Gelli Hir	Farmhouse	Post Medieval
21542	SN49980569	Felin Newydd Farm	Longhouse	Post Medieval
23936	SN49970551	Tir-Deri	Cottage	Post Medieval
24266	SN50350550	Afon Lleidi	Quarry	Post Medieval

Table 1: Known sites in close proximity to development.

In addition to the above named sites the course of the former Llanelli and Mynydd Mawr Railway is located to the north west of the development site. This was originally the Carmarthenshire Railway or Tramroad that was authorised by Act of Parliament in 1802, making it one of the earliest public railways in the world (Price, 1992, 14).

None of the sites identified during the course of the HER search or from documentary research would be directly affected by the redevelopment of the Old Mill. However, any development has an impact on the landscape but in the case of the redevelopment of the Old Mill this may be beneficial as it would restore a derelict structure and ensure that it will survive outwardly unaltered.

SUMMARY OF STANDING BUILDING RECORDING RESULTS (PRN 94423)

Standing Building Recording Methodology

Site visits were made to the Old Mill to undertake a programme of standing building recording of the walls and features associated with the structure. Elevation drawings of the exterior walls were produced at a scale of 1:20 the only exception being the section of the main mill wall located within the smaller structure abutting it which appeared to be unsafe to access with much loose stone being supported by a heavily deteriorated wooden lintel above the doorway. A 1:50 scale plan of the footprint of the structure along with wheel pit and covered over millrace was also produced during the course of the recording programme. In addition to a drawn record of the surviving structure of the mill, a detailed photographic survey was also undertaken, overlapping the images where possible.

Discussion

The results of the standing building recording suggest that the Old Mill was constructed in two phases.

The earliest phase of construction appeared to be the larger northwest to southeast aligned structure of mortared rubble coursework. Access to the structure was originally through doorways piercing the northeast and southwest side walls. The door in the northeast wall was at a higher level to that in the southwest suggesting that it provided access to a now destroyed first floor. This doorway was likely to have been the entry point for corn to be ground. The doorway in the southwest wall was likely to have provided access to a basement level and originally have been where the flour would have been taken from the mill.

No evidence for internal division of the structure was noted during the course of the standing building recording. It was also not possible to identify any evidence for machinery within the structure as much of the floor was obscured by fallen stonework. At the southwest end of the structure was a c.1m high bank of dark brown clay silt containing c.10% roofing slate and degraded mortar. This may have been the result of dumping, although a local resident who visited the site during the building work suggested that it was the location of an infilled cellar but it was not possible to confirm this.

Noted in the southwest gable wall were three rectangular openings. These may once have been windows to provide light and ventilation to the basement level. Alternatively, they may once have been used to accommodate substantial floor joists for supporting the first floor where the millstones for grinding may have been housed.

The northeast gable wall was pierced by two broadly square window openings set at high level. It was also noted that the scars of floor joists were present, which suggests that the mill once had a second floor. No indication of floor joists were noted on the southwest gable wall at this level which may suggest that the floor did not continue across the whole length of the structure. An additional opening was noted at ground level, this is likely to have been where the axle of the waterwheel entered the mill. Externally at this point the remains of a silted up wheel pit were noted along with the mill head race and covered over tail race.

An opening at first floor level in the southwest wall provided access to the upper storey of the possibly later addition to the mill. However, due to the unstable nature of the building it was not possible to access the structure.

Aligned northeast to southwest a rubble coursed possible later addition to the original mill was noted. It was not possible to record the internal space of the structure due to it being unsafe to enter. However, the structure appeared to have been originally of two storeys and lit by windows in the side and gable wall although much of the upper storey had been destroyed. The upper storey provided access to the original mill via a doorway in the northeast wall. The means of access between the ground and first floor of the structure were unclear although it is possible that it may have been by ladder.

The ground floor of the possible later addition to the mill was originally accessed through doors in the side and gable walls. No direct ground floor access was possible to the original mill. Of these three original doors only the one in the northwest side wall was still open. The door in the gable end had been blocked with rubble whilst that in the southeast side wall may have been converted to a window by the insertion of a concrete lintel and plinth. This possible window was completely blocked with red brick.

It was noted that the upper level of the southeast side wall was constructed of larger stone than the rest of the addition. This may suggest that it had been rebuilt. However, it is equally likely that it may be evidence for a different stone source and may represent a wall lift whereby the rubble coursing was levelled to provide a good base for the continuation of construction.

Running along the northwest side wall, and continuing to the site of the former wheel pit, a covered over tail race was noted. To the northeast of the wheel pit a c.2m high wall was noted, this once functioned as the head of the head race. Within the head race wall was a c.0.4 x 0.2m recess that may suggest the original waterwheel was breastshot whereby water entered the wheel below the top. However, the presence of sockets in the north west gable wall of the mill may indicate that a breastshot wheel was replaced by either an overshot or pitchback wheel whereby water enters at the top of the wheel. Both these forms of wheel provide more power than the breast shot system. This upgraded power system may have been installed at the same time as the extension to the original mill was constructed.

Conclusion

The standing building recording revealed that the present structure of the Old Mill Horeb was constructed in two phases. It is likely that the earliest phase of construction was the main mill with the smaller addition added later, possibly to provide greater storage space.

Map evidence has revealed that the structure has been in this form since at least the latter part of the 19th century although it is not possible to provide a more exact date.

It is also likely that the water wheel powering the mill was upgraded from breast shot to either over shot or pitch back to provide more power. This was probably carried out at or around the same period as the extension was constructed.

SUMMARY OF WATCHING BRIEF RESULTS (PRN 94422)

Watching Brief Methodology

The watching brief methodology consisted of a series of site visits being made to monitor the groundworks for the development of the Old Mill. The groundworks comprised the clearance and subsequent topsoil stripping of the site. An additional aspect was to monitor the demolition of the head race wall and clearance of the internal structure of the mill. Site visits were undertaken following communication from the site contractor.

Watching Brief Results

Topsoil stripping of the site revealed that the stratigraphic sequence was broadly uniform across the site with a 0.4m deep dark grey brown clay silt topsoil of moderate compaction and containing c.40% large subangular stone and c.10% roofing slate brick and mortar overlying a mid orange brown clay of firm compaction. The presence of a high proportion of large stone, roofing slate and mortar within this layer suggests it was building debris derived from the mill. However, the presence of brick suggests that material had been deposited from elsewhere as the mill structure contained no substantial brick elements. The bricks noted appeared to have been of relatively modern date with one bearing the name Glynea Co Bynea. The Glynea Brick Works operated between 1893 and 1931 and manufactured brick from clay from Glynea Colliery and shale from its waste tips (Craig *et al*, 2002, 331).

Two archaeological features were revealed and recorded during the clearance and topsoil stripping of the site. The first was a 3.3m x 1.6m metal surface of large subangular stone that may have been part of a yard surface. Post medieval willow pattern stoneware fragments were recovered along with late 19th – early 20th century glass but these were not retained.

Clearance works to the northeast of the head race wall revealed a 3.75m long 0.9m wide, 1.4m deep stone channel that supplied water to power the water wheel. The full extent of the channel was unknown as it continued beneath the unexcavated area. The channel was capped with stone slabs, one of these was disturbed during the clearance works and was found to be 1.2m long, 0.5m wide with a thickness of 0.04m.

Monitoring of the demolition of the head race wall revealed no further archaeological features.

Conclusion

The watching brief revealed two archaeological features associated with the mill in the form of a possible yard surface and stone lined water channel. No other archaeological features or deposits were revealed during the groundworks monitored.

Sources

Map

Ordnance Survey 1880 1:10560 Carmarthenshire Sheet XL NE
Ordnance Survey 1915 1:10560 Carmarthenshire Sheet XL NE
Ordnance Survey 1986 1:50000 Landranger.
Tithe Map and Apportionment 1842 Llanelli Parish

Published Sources

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Craig R.S, Protheroe Jones R & Symons M.V 2002 *The Industrial and Maritime History of Llanelli and Burry Port 1750 to 2000*. Carmarthen. Carmarthenshire County Council.

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Price M.R.C 1992 *The Llanelli and Mynydd Mawr Railway*. Headington. The Oakwood Press.

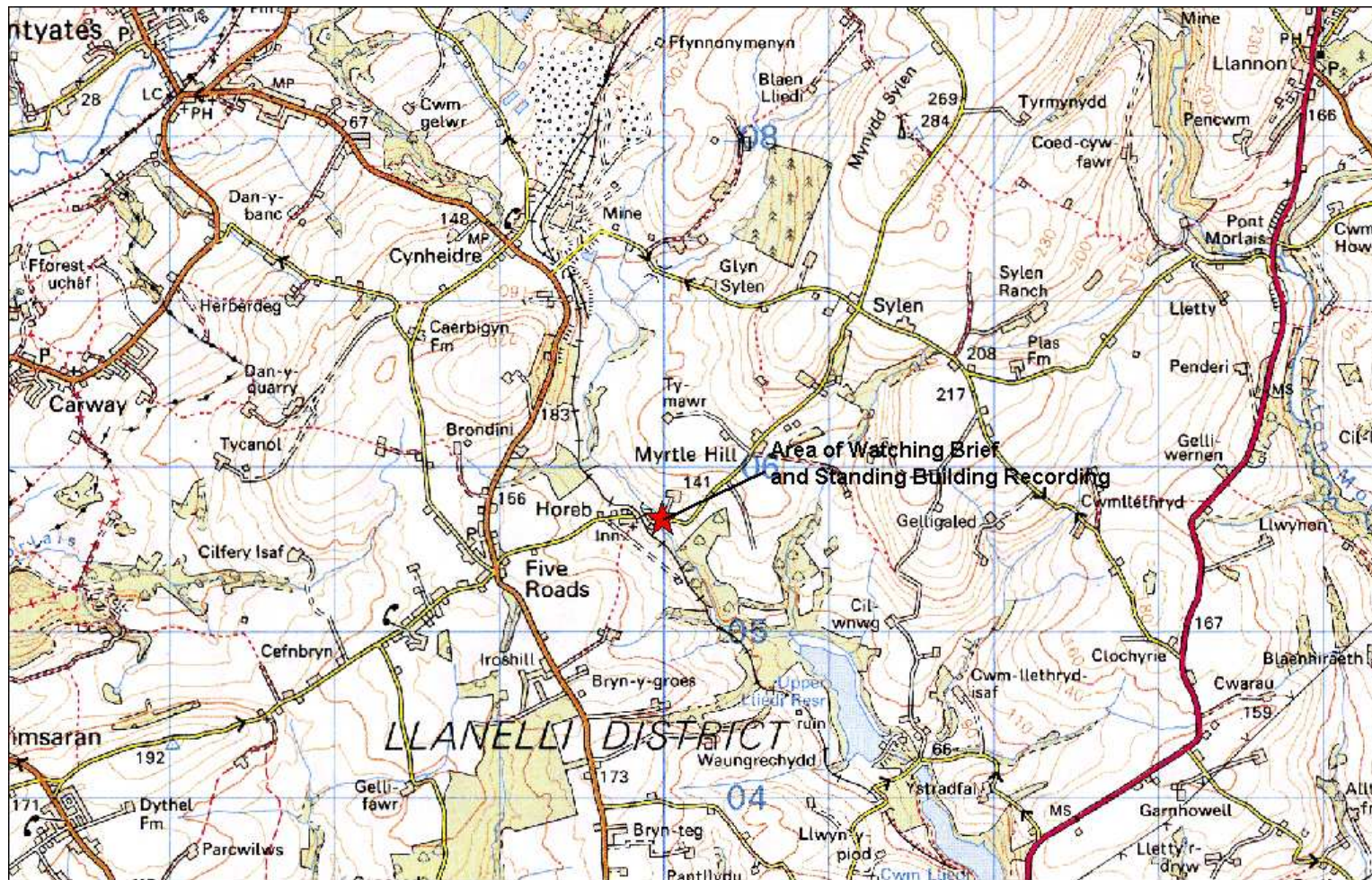


Figure 1: Location map of site based on the Ordnance Survey.

Reproduced from the 1986 Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Cambria Archaeology, The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No AL51842A

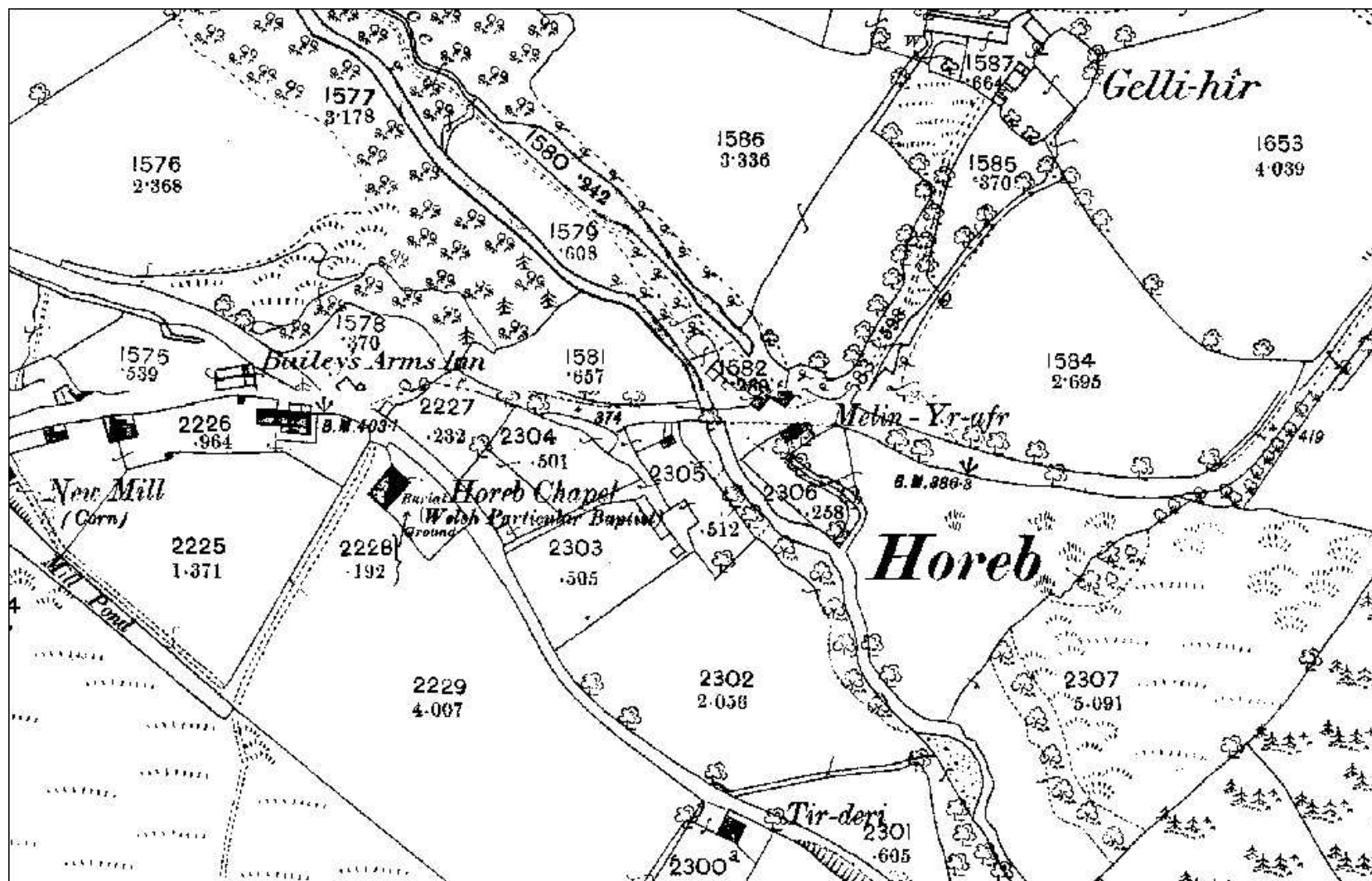


Figure 2: Extract of 1st edition 1:10560 Ordnance Survey 1880.

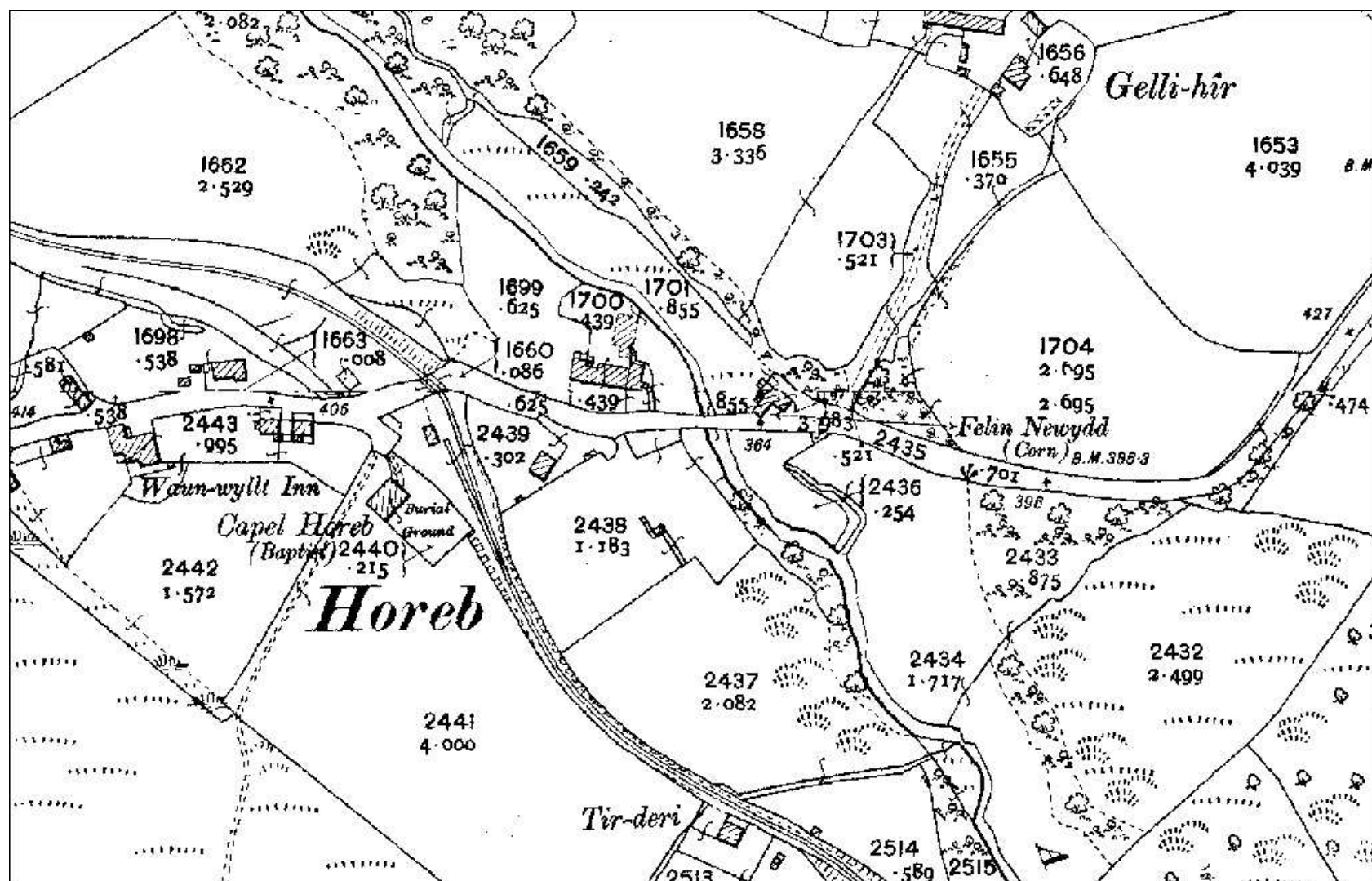


Figure 3: Extract of 2nd edition 1:10560 Ordnance Survey Map 1915.



Plate 1: Metalled possible yard surface.



Plate 2: Stone water channel from west.



Plate 3: Stone water channel looking north.



Plate 4: View of site from southeast following topsoil stripping.



Plate 5: Overview of site from north.

APPENDIX 1
STANDING BUILDING RECORDING
THE PHOTOGRAPHS



Plate 6: Northwest corner mill rear wall from northeast.



Plate 7: Mill rear wall from northeast. Shot 2.



Plate 8: Mill rear wall from northeast. Shot 3.



Plate 9: Mill rear wall from northeast. Shot 4.



Plate 10: Mill rear wall from northeast. Shot 5.



Plate 11: Mill rear wall from northeast showing doorway. Shot 6.



Plate 12: Mill rear wall from northeast. Shot 7.



Plate 13: Mill rear wall from northeast. Shot 8.



Plate 14: Mill rear wall from northeast. Shot 9.



Plate 15: Southeast corner of mill rear wall. Shot 10.



Plate 16: Overall view of mill rear wall from southeast.



Plate 17: Northwest corner of mill gable end from southeast. Shot 1.



Plate 18: Northwest corner of mill gable end from southeast. Shot 2.



Plate 19: Mill gable end from southeast. Shot 3.



Plate 20: Mill gable end from southeast. Shot 4.



Plate 21: Southwest corner of mill gable end from southeast. Shot 5.



Plate 22: Upper section of mill gable end from southeast.



Plate 23: Southeast corner of mill front wall from southwest. Shot 1.



Plate 24: Mill front wall from southwest. Shot 2.

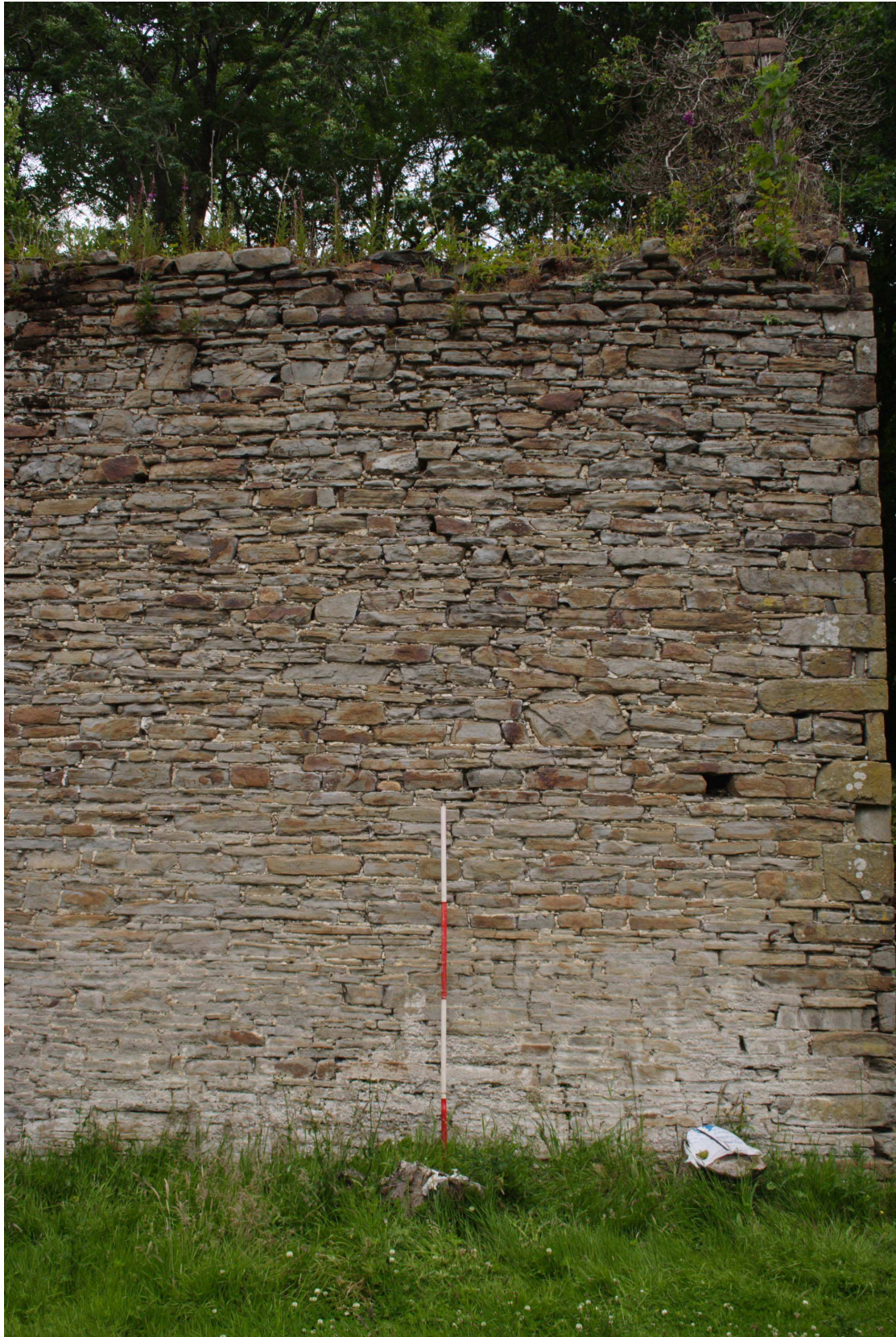


Plate 25: Mill front wall from southwest. Shot 3.



Plate 26: Mill front wall from southwest. Shot 4.



Plate 27: Mill front wall from southwest showing doorway. Shot 5.



Plate 28: Mill front wall from southwest. Shot 6.



Plate 29: Northeast corner of extension wall from southeast. Shot 1.



Plate 30: Extension wall from southeast window visible. Shot 2.



Plate 31: Extension wall from southeast. Shot 3.



Plate 32: Extension wall from southeast area of larger stone visible above vertical scale. Shot 4.



Plate 33: Extension wall from southeast blocked door/window to left. Shot 5.



Plate 34: Extension wall from southeast. Shot 6.



Plate 35: Southwest corner of extension wall from southeast. Shot 7.



Plate 36: South east corner of extension gable end from southwest. Shot 1.



Plate 37: Extension gable end from southwest. Shot 2.



Plate 38: Extension gable end from southwest showing blocked doorway with window above. Shot 3.



Plate 39: Extension gable end from southwest. Shot 4.



Plate 40: Northwest corner of extension gable end from southwest. Shot 5.



Plate 41: Southwest corner of extension from northwest. Showing doorway and window to upper left. Shot 1.



Plate 42: Extension side wall from northwest. Shot 2.



Plate 43: Extension side wall from northwest. Shot 3.



Plate 44:



Plate 45: Gable end of mill from southwest.



Plate 46: Head race wall from southwest.



Plate 47: Former wheel pit.



Plate 48: Covered tail race from northeast.



Plate 49: Overall view from southwest.



Plate 50: Overall view from east.



Plate 51: Internal southeast gable wall.



Plate 52: Internal northwest gable end.



Plate 53: Internal side wall looking northeast.