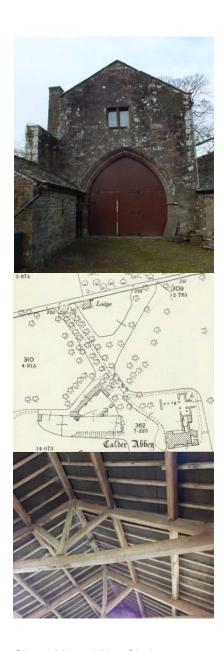
THE GATEHOUSE, CALDER BRIDGE, GOSFORTH, CUMBRIA

Archaeological Building Recording



Client: Mr and Mrs Clarke

NGR: 304959 506395

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Non-Technical Summary

Prior to the submission of a planning application for the refurbishment and conversion of the former gatehouse at Calder Bridge, Gosforth, Cumbria, Greenlane Archaeology was commissioned to carry out an archaeological building recording of the site. The building is part of the medieval Calder Abbey and is statutorily protected as a Scheduled Monument so the recording was requested by Historic England in order to form a permanent record of the building and provide an understanding of its development and significance in order to inform the eventual planning application. The project was carried out in March and April 2018.

The gatehouse forms part of the medieval abbey at Calder, which was founded in 1134 as an off-shoot of Furness Abbey. The instability of the Anglo-Scottish border at this time meant that it was destroyed in a raid on the area only a few years later and the monks returned to Furness but they were refused entry, and ended up at Byland. The abbey at Calder was re-established in 1143 following a dispute between Furness and Byland and, although never rich, flourished in the late 13th century. Following the Dissolution it passed through a number of families, the most noteworthy of whom are perhaps the Irwins in the late 18th to early 19th century, who made a number of alterations to the abbey ruins and built a substantial mansion, and the Rymers in the late 19th and early 20th century, who did much to preserve the surviving remnants of the abbey. The map and image evidence shows that the building had essentially its present form by the early 18th century, although the original doorways had been mostly blocked by the late 19th century and a row of outbuildings attached to the north side. Early investigations of the abbey have tended to concentrate on the main abbey buildings, but there are reasonably detailed accounts of the gatehouse from 1886 and 1953.

The building recording revealed that while much of the original medieval fabric of the structure remains the building has been subject to a number of alterations, the earliest being the probable insertion of mullion windows at second floor level, perhaps in the later medieval period. In the late 18th or 19th century the original openings were blocked, a new floor added, an additional first floor doorway added to the north, and a chimney and flue added to the south-east corner, all as part of the incorporation of the building into a range of outbuildings and an adjoining garden. More recently the later floor has been removed due to the change in use of the building into a garage.

As a Scheduled Monument the gatehouse is considered to be of national significance and it is clear that it retains a considerable amount of original fabric. Nevertheless, this has been subject to alteration as the use of the building has changed. The proposed new use, to install a new first floor with a toilet below, is unlikely to cause additional damage, although an awareness of any early graffiti in the plaster should be maintained. In addition, the cluttered nature of the interior during the building recording and the presence of the mezzanine floor made taking internal photographs difficult, so it would be beneficial to take some more once the building had been cleared and the mezzanine removed. Also, it might be considered worthwhile archaeologically monitoring any excavation associated with installing supports for the new floor or new services.

Acknowledgements

Greenlane Archaeology would like to thank Mr and Mrs Clarke for commissioning the project and for their assistance on site. Further thanks are due to their agent Martin Howell of Architectural Designs Ltd for providing as existing drawings and for his help during the project. Special thanks are due to the staff of the Cumbria Archive Centre in Carlisle (CAC(C)) for their assistance during the desk-based assessment.

The building recording was carried out by Dan Elsworth and Ric Buckle, who also produced the report and the former of whom carried out the desk-based assessment. The illustrations were produced by Tom Mace, with orthorectified photographs produced by Adam Stanford of Aerialcam, and the report was edited by Jo Dawson.

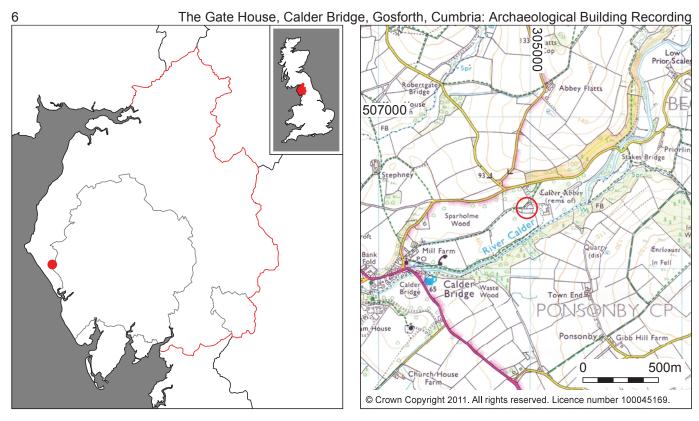
1. Introduction

1.1 Circumstances of the Project

1.1.1 Prior the submission of a planning application for the refurbishment and conversion of the former gatehouse at Calder Bridge, Gosforth, Cumbria (NGR 304959 506395), Historic England requested that, as the building is a Scheduled Monument (as part of the wider Calder Abbey, Ref. 1007116; *Apendix 1*) and a Grade II* Listed Building (see *Appendix 2*) and so statutorily protected, an archaeological building recording be carried out so as to inform the eventual application. Greenlane Archaeology were commissioned by Mr and Mrs Clarke (hereafter 'the client'), via their agent Martin Howell of Architectural Design Ltd, to carry out the building recording, the fieldwork for which was carried out in March 2018.

1.2 Location, Geology, and Topography

- 1.2.1 The gatehouse is approximately 1km north-east of the village of Calder Bridge on the Irish Sea coast of Cumbria and lies between 60m and 70m above sea level (Ordnance Survey 2011; Figure 1).
- 1.2.2 Calder Bridge is within the West Cumbria Coastal Plain, which is characterised by varied open coastline of mudflats, shingle and pebble beaches, lowland river valleys, and gently undulating or flat improved pasture with hedgerows, however, the immediate area is dominated by the former power plant and nuclear reprocessing facilities at Sellafield (Countryside Commission 1998, 25). The solid geology comprises mudstone (Moseley 1978, plate 1), which is overlain by glacially-derived boulder clay with, in places, sand and gravel (Countryside Commission 1998, 27).



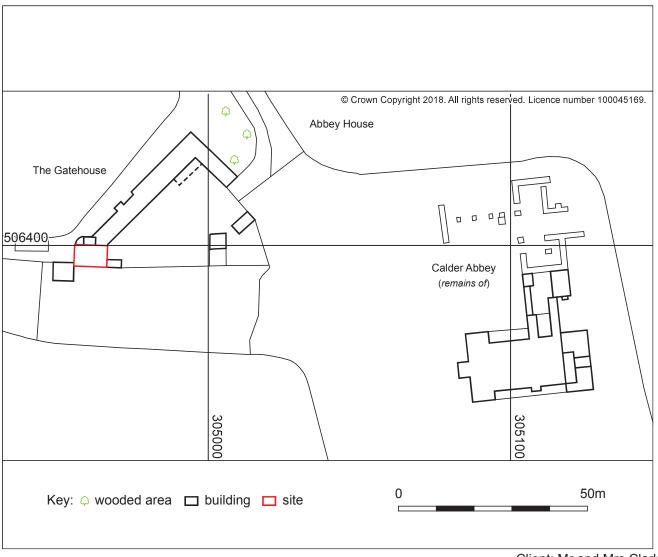


Figure 1: Site location

Client: Mr and Mrs Clarke
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2. Methodology

2.1 Introduction

2.1.1 The building recording is intended to provide a suitable record of the structure equivalent to Level 3 survey as defined by Historic England (Historic England 2016). The building recording was carried out according to the guidelines of the Chartered Institute for Archaeologists (ClfA 2014a). A suitable archive has also been compiled to provide a permanent paper record of the project and its results, also in accordance with ClfA guidelines (ClfA 2014b).

2.2 Desk-Based Assessment

- 2.2.1 A desk-based assessment was carried out in accordance with the guidelines of the Chartered Institute for Archaeologists (ClfA 2014c). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the compilation of the desk-based assessment:
 - Cumbria Archive Centre, Carlisle (CAC(C)): this was visited primarily in order to examine early maps and plans of the site, but also other relevant primary and secondary sources;
 - **Greenlane Archaeology**: additional primary and secondary sources held in Greenlane Archaeology's library were also examined to provide information for the site background and map regression.

2.3 Building Recording

- 2.3.1 The building recording was carried out to Historic England Level-3 type standards (Historic England 2016), which provides a relatively detailed record of the building, and discusses its development in terms of its recorded historical context. The recording comprised the following elements:
 - **Written record**: descriptive records of all parts of the buildings were made using Greenlane Archaeology *pro forma* record sheets;
 - Photographs: photographs in both 35mm colour print and colour digital format were taken of the main features of the building, its general surroundings, and any features of architectural or archaeological interest. A selection of the colour digital photographs is included in this report, and the remaining photographs are in the project archive. In addition a broader coverage of high resolution digital photographs was also taken with the intention of providing a basis for producing orthorectified images of both the interior and exterior elevations, although in the event the adjoining structures, vegetation and the fittings and quantities of material inside the building made this difficult, especially in terms of the west internal elevation:
 - **Drawings**: 'as existing' drawings were provided by the architect. The plans were printed at a scale of 1:100 and hand annotated with additional detail on site, which was then used in the production of the final drawings. In addition, a cross-section was produced on site by hand. The incomplete orthorectified photographs were also used to produce stone-by stone internal and external elevations, with the missing detail added by hand on site. The drawings produced ultimately comprised:
 - i. external elevations at 1:100 (Figure 2 and Figure 3);
 - ii. plan of the ground floor of Building 1 at 1:100 (Figure 4);
 - iii. plan of the first floor of Building 1 at 1:100 (Figure 4);
 - iv. internal elevations at 1: 100 (Figure 5 and Figure 6);
 - v. a cross-section showing the detail of the truss at 1:50 (Figure 7).

2.4 Archive

2.4.1 The archive, comprising the drawn, written, and photographic record of the building, will be deposited with the Cumbria Archive Centre in Whitehaven. The archive has been compiled according to the standards and guidelines of the CIfA guidelines (CIfA 2014b). A copy of this report will be supplied to the client, a digital copy will be supplied to Historic England and the Cumbria Historic Environment Record (HER), and one will be retained by Greenlane Archaeology. In addition, a digital record of the project will be made on the Online Access to the Index of Archaeological Investigations (OASIS) scheme.

3. Desk-Based Assessment

3.1 Map and Image Regression

- 3.1.1 *Introduction*: although there are early, typically county-wide, maps, such as on Donald's map of 1774, that include the area they are generally very small scale and of limited use in interpreting a single building. The site is also not shown on the relevant enclosure map. The only available maps that are detailed enough are therefore the Ordnance Survey maps of the area, which appear in the late 19th century. While there are numerous early images of Calder Abbey in existence few show the gatehouse, but those that could be discovered are also included in the map regression.
- 3.1.2 **View of Calder Abbey, c1730**: this image of Calder Abbey by Matthias Read is considered by Loftie to date to c1710 (Loftie 1886, 477). The original is now held at Abbot Hall Art Gallery and is now considered to be more likely to date to c1730, the point where the estate was acquired by John Tiffin (Historic England 2018a; the original is reproduced in Burkett and Sloss 1995, plate 6, and see page 45). It is of uncertain accuracy but appears to show the east end of gatehouse on its right hand edge. This clearly depicts the large arched opening, apparently still open, with the window above. What is also of interest is that the adjoining buildings to the north and east are not present but there is a tall boundary running to the east and possibly another running to the north.

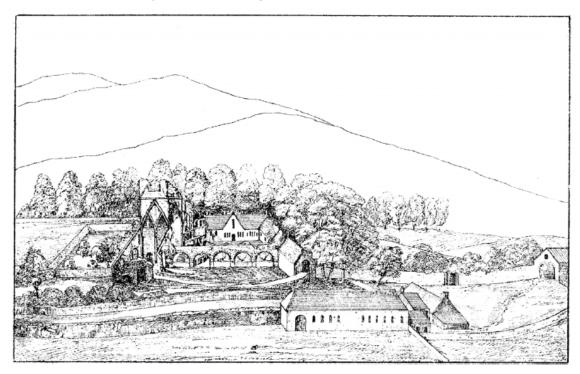


Plate 1: Image of Calder Abbey c1730, reproduced by Loftie (1886)

- 3.1.3 **Plan of Calder Abbey, 1788**: this plan was evidently produced during the ownership of Joseph Tiffin and shows many of the outbuildings now extant to the north of the gatehouse as extant, but not those immediately adjoining it. Curiously, despite this plan being very detailed, the gatehouse itself is not shown although the space in which it would stand is easily identifiable. Given that it is clearly present on the earlier image and on the later maps it seems unlikely that it simply did not exist in 1788. This map perhaps therefore suggests that at this time it was roofless and so was not depicted.
- 3.1.4 **Ordnance Survey, 1867**: the earliest Ordnance Survey map of the area was the 1: 10,560 map published in 1867. The scale means it is not as detailed as those that come after it but it is possible to make out the gatehouse, at the end of a linear block of buildings running north-east/south-west. It is clear that by this date it has a range of additions attached to it, on the south and east sides (Plate 2).

3.1.5 *Ordnance Survey, 1894*: although published in 1894 this map was surveyed in 1860 and so shows broadly the same information as that published in 1867 (Plate 3; cf. Plate 2). However, the larger scale makes it apparent that the addition to the south is a glasshouse.

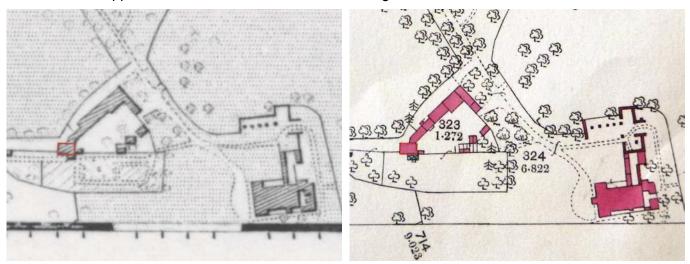


Plate 2 (left): Extract from the Ordnance Survey map of 1867 Plate 3 (right): Extract from the Ordnance Survey map of 1894

3.1.6 **Sketch, 1886**: a sketch of the gatehouse, apparently signed 'JRL' accompanies Loftie's second account of the remains of Calder Abbey (Loftie 1886) (Plate 4). There are clearly some discrepancies in terms of the dimensions of the building compared to later views (see Plate 5 and Plate 8) but some important details are apparent. Firstly, the arched opening on the east side has clearly been largely blocked by this date leaving a smaller doorway. Secondly, the chimney on the south-east corner is shorter than it is now and as it is depicted in later images, while the building attached to the north side was clearly a stable or animal housing. The building otherwise appears much as it does today.

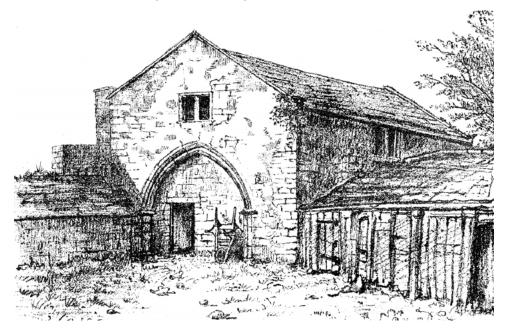


Plate 4: Sketch of the gatehouse by 'JRL' reproduced by Loftie (1886)

3.1.7 **Sketch, 1889**: a pencil sketch by an unknown artist dated October 1889 is present in the archives in Carlisle (CAC(C) DX 2114/1 c1892-1894). Again there are some inaccuracies in the drawing, which has made the building appear taller and thinner than it actually is, but this drawing otherwise shows a number of features of interest. While it is apparent that the building has changed relatively little since the previous sketch was produced it does show that the original arched gateway on the east side

was still mostly blocked leaving a smaller doorway (Plate 5). In addition, the slope of an outshut on the south side of the gatehouse is just visible, confirming the presence of an adjoining building, as shown on the early plans.



Plate 5: Sketch of the gatehouse dated 1889 (CAC(C) DX 2114/1 c1892-1894)

- 3.1.8 *Ordnance Survey, 1899*: this shows essentially the same information as the earlier map published in 1894 (Plate 6; cf. Plate 3).
- 3.1.9 *Ordnance Survey, 1925*: this map shows a broadly similar arrangement to the previous ones, although the glasshouse attached to the south side of the gatehouse has clearly become slightly larger and additional glasshouses have been built in the gardens to the west (Plate 7; cf. Plate 6).

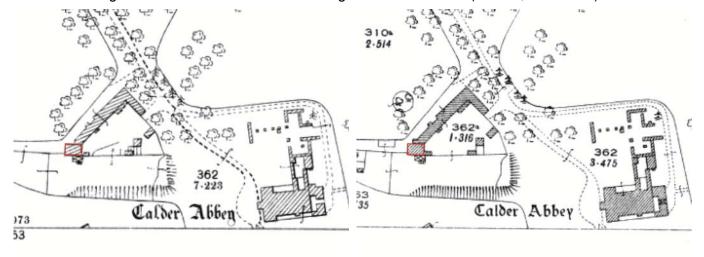


Plate 6 (left): Extract from the Ordnance Survey map of 1899
Plate 7 (right): Extract from the Ordnance Survey map of 1925

3.1.10 **Photograph, c1920s**: a photograph held in the Cumbria Image Bank shows the gatehouse from the east in what is thought to be the 1920s (Cumbria Image Bank 2018; ref ct12356). It is remarkable how little the building has apparently changed since the production of the earlier sketch (Plate 8; cf. Plate 5), although it is apparent that the site was somewhat neglected by this date as the adjoining yard is very overgrown.



Plate 8: Photograph of the gatehouse from the 1920s (Cumbria Image Bank 2018)

3.1.11 **Summary**: it is evident from the cartographic sources that by at least 1860 a number of buildings had been built against the former gatehouse, comprising a long range including a stable block or animal housing to the north, a glasshouse to the south, and another outbuilding to the east. The latter of these elements are clearly visible in two early images of the building, which also demonstrate that the original east door had been largely blocked with stone by at least 1889 with only a small door remaining.

3.2 Site History

3.2.1 *Medieval*: since the gatehouse forms part of the medieval Calder Abbey it is only worthwhile examining the history of the site from the medieval period onwards. Calder Abbey was founded on 10th January 1134 following a grant of land by Ranulf Meschin, the Lord of Cumberland, with additional lands granted soon after (Wilson 1905, 147-178; see also Loftie 1888). The initial colony of 12 monks who settled at Calder came from Furness Abbey to the south and they survived four years at the site until the cross-border war with Scotland led to a number of substantial raids on the area one of which destroyed the relatively new establishment at Calder (*ibid*). The monks returned to Furness hoping for help but were refused entry and eventually were taken in at Byland Abbey in Yorkshire (*ibid*). Following an attempt to free themselves from their connection to Furness and return to Calder under the jurisdiction of Byland the monks were ultimately re-established at Calder under the control of Furness in 1143 (*ibid*). New grants of land were soon made and Calder saw its fortunes improve with a number of local lords making substantial donations throughout the 13th century but Calder was never a particularly rich house (*ibid*). There is little recorded of the abbey's buildings and it is thought that they were under-developed until the time of Thomas de Multon, Baron of Gilsland in the early 13th century (*ibid*). The abbey was first visited by Henry VIII's commissioners in 1535 and surrendered to the commissioners on the 4th February

1536, at which point the site of the Abbey was granted to Thomas Leigh LL.D 'the notorious commissioner for the northern suppression', who was also granted some of the other lands (ibid).

- 3.2.2 Post-Dissolution: the post-Dissolution history of the Abbey is outlined in some detail by Fair (1953, 96-97). Leigh's descendants sold the estate in 1586 to Sir Richard Hutton and it was subsequently purchased by Sir Richard Fletcher of Hutton-in-the-Forest, from whose descendants it passed to Bridget Fletcher, his sister. She in turn married John Patrickson, from whom it passed to his son who married Ursula Dodding of Conishead Priory near Ulverston. In 1695 they released the estate to John Aglionby, and several mortgages were taken out against it and after this foreclosed his heirs mortgaged it to John Tiffin of Cockermouth in 1730. He then bequeathed it to his grandson, John Senhouse, and it eventually passed through the marriage to Mr Thomas Irwin, through whose descendants it was sold to Thomas Rymer in 1885, whose family retained the bulk of the abbey site into the 20th century. It is not clear how much alteration these various owners carried out to the wider abbey site but members of the Irwin family were certainly named as responsible for various alterations during the late 18th and early 19th century (Loftie 1886; Fair 1953) and it was presumably they who built much of the current mansion on the site, which is largely of late 18th and early 19th century date (Hyde and Pevsner 2010, 216). Fortunately, the Rymer family carried out a considerable amount of restoration work after their acquisition of the site in 1885 to the extent that it was remarked that their 'energetic efforts to preserve and fully reveal the beauty of this venerable ruin will be appreciated by all who have visited Calder Abbey, and even more by those who visit it long years hence' (Anon 1903, 392).
- 3.2.3 **Previous investigation**: given the significance of the site Calder Abbey as a whole has seen relatively little investigation, the earliest excavations seemingly only being in the late 19th century (Loftie 1883; 1886) although these inevitably concentrated on the main part of the abbey buildings and do not appear to have included the gatehouse at all. The earliest account to do so in any detail is from 1886 (Loftie 1886, 471) and is repeated below in full:

'The abbey gate house itself, has been much altered from time to time; we can see the pointed arches, now built up, dating from the 13th or 14th century, in its west and east faces, and over them four mullioned windows, of a much later date; the roof is now of a very low pitch, and dates, the gables of it at least, from the time when the square headed windows were put in; these windows themselves also seem to have been, at some time, reduced in size; for below the west one, we can trace, built into the wall, a mullion which formed part of the lower division; this must have almost touched the top of the pointed arch, and been on a level with the floor of the porter's room.

When this building was no longer required as an entrance from the public road to the abbey grounds... the owner ruthlessly turned it into a cow house, or byre! A new floor was put in to serve as a hayloft, at a much lower level than the original one, being built across the entrance archways; and access to the cow house below was given by small square doors within the walled up arches. In A.D. 1794, when Hutchinson's history of Cumberland was published this building seems to have been in use as an entrance to the abbey.'

There is now no trace of stairs, to give access to the upper chamber, nor of any fire place, or chimney; the doorway broken into the north wall of the loft, is of course quite modern.'

3.2.4 A later account from 1953 is also of interest as it too describes the gatehouse in some detail (Fair 1953, 85):

'The Gatehouse is to the right of the present carriage-drive as you enter it; it still retains its 13th century entry arches, though they are now built up; it has two portals and a passage between them. The upper storey has been completely altered, with a roof of much lower pitch and a new floor at a much lower level than the original one, put in to make it serve as a hay-loft; the mullioned windows and a fireplace are also of relatively recent date. The chapel and guest-house, which would adjoin the gatehouse, have completely disappeared; but the adjoining range of stables, coach-houses, etc., is largely built of abbey stones, and the top stone of the staircase leading from the former coachman's quarters is a very large corbel.'

3.2.5 The original Pevsner volume states that the gatehouse 'seems to be of 14th century date' (Pevsner 1967, 86), while the revised states more strongly that it is 14th century and in use as a garage

(Hyder and Pevsner 2010, 217). The recent listing also suggests it is 14th century in date, that it was in used as a garage by the time of the listing survey in 1984 and that the roof had been renewed in 1970 (Historic England 2018b; *Appendix 1*).

4. Building Recording

4.1 Arrangement and Fabric

4.1.1 The building comprises a single rectangular block extending over three floors (although these were probably not all in use at the same time), orientated east/west. It is attached to a longer block of buildings running north-east/south-west on the north side and has a further small outbuilding attached to the south side of the east elevation as well as a very tall boundary wall extending from the south side of the west elevation. The whole building is primarily constructed from red sandstone laid in courses of neat blocks, although with areas of more random build in places. Well-dressed stonework has been utilised to finish the doorways and windows. Internally the walls are finished with lime wash or the traces of plaster, although this has mostly come away leaving exposed stone. The internal woodwork is either hand-finished or sawn although a modern internal floor has been inserted at the west end that is constructed from machine cut timber and supported by scaffolding rather than any structural joists. The interior was partially obscured by material stored in the building and also the mezzanine floor, which reduced light levels and made examination difficult in areas.

4.2 External Detail

4.2.1 **North external elevation**: the lower part of the elevation is obscured by the attached former outbuilding and a later extension (Plate 9). The west side has clearly been substantially rebuilt and incorporates a first floor doorway with a dressed sandstone lintel and quoins, which has been subsequently blocked with stone. In the centre is a window that extends to the eaves and has a two-light mullion of chamfered red sandstone. The east side is relatively plain and constructed from roughly dressed blocks laid in rough courses and both ends are finished with quoins.



Plate 9: General view of the north external elevation, viewed from the north-west

4.2.2 **East external elevation**: this forms the gable end, and is topped with a dressed coping with kneelers, although the south side is extended above this by a square chimney with a flat top. It is constructed from roughly dressed blocks laid in fairly random courses, although there are some patches of surviving render (Plate 10). The elevation is dominated by a central large pointed arch with dressed double chamfered jambs. This has been infilled with a modern timber stud wall constructed from planks and housing a double garage door hung on large hinges and a pedestrian door. Above the arch is a

single window with a two-light chamfered stone mullion. The south side is also partially obscured by an attached monopitch outshut above which is a tall section of the boundary wall extending from the east elevation.



Plate 10: General view of the east external elevation, viewed from the east

4.2.3 **South external elevation**: this is also constructed from roughly dressed red sandstone blocks, although these are obscured over large parts of the ground floor by a later concrete skim and vegetation on the west side and there are various small patches of brick at first floor level on the east side (Plate 11). There are also various notches in some of the stonework, presumably relating to fixtures that have been removed. On the east side a small alcove has apparently been knocked into the wall to provide a fireplace (Plate 12) and this links into a flue in the wall, which extends into a square chimney raised above the eaves. A timber gutter supported by iron brackets runs along at first floor level on the east side, and the elevation continues into the adjoining boundary wall, suggesting it is perhaps contemporary. At second floor level there is a central window with a two-light central window with chamfered stone mullions.



Plate 11: General view of the south external elevation, viewed from the south



Plate 12: Fireplace built into the east end of the south external elevation, viewed from the south

4.2.4 **West external elevation**: this too is constructed from roughly dressed red sandstone blocks, although exact arrangement of most of these is obscured by the remains of roughcast render (Plate 13). The centre is dominated by a large arched opening with dressed double chamfered jambs, which has been blocked with stone leaving a smaller pedestrian doorway on the south side, which has a square stone surround and an additional lager stone lintel. Above the arch is a central window with a two-light chamfered mullion, which is apparently at least partly reused as the sill has the returns for a further

three-light or larger window. The eaves are finished with the remains of a dressed stone coping with a slight moulding coming to kneelers. The south side is butted by a tall boundary wall, and a line in the stonework above this may be an extension of this line.



Plate 13: General view of the west external elevation, viewed from the west

4.3 Internal Detail

4.3.1 This now extends to the roof although it has clearly had internal floors at different heights belonging to different periods and still has a modern mezzanine floor against the west end. The floor is finished with modern cobbles set in concrete. The roof is supported by two suspended king post trusses with a splayed head and angled braces running from sloping joggles (Campbell 2000) (Plate 14). The interior is largely exposed stone laid primarily in fairly rough courses, but traces of lime wash are present throughout and at the top, beyond a step in the wall that originally supported a first floor, is finished with plaster, which clearly originally extended below this level.



Plate 14: Eastern truss, viewed from the west

4.3.2 The north internal elevation has modern timber staircase attached west of the centre and a row of three blocked openings at ground floor level, two of which are filled with a single slab, while the third, at the east end (Plate 15 and Plate 16), is filled with smaller stones. The ends of two timber beams project from the wall, and the same height as the current mezzanine floor but clearly pre-dating it (Plate 17). At first floor level there is a doorway on the west side in an area that has clearly been substantially rebuilt, with a rough timber lintel into which has been inserted a modern set of shelves (Plate 18). To the east are four patches of plaster (Plate 19), the western two of which have circles scored into them (Plate 20), perhaps 'witch marks', while those to the east have scored and pencil graffiti: 'Matt. E. Thompson', 'Joan Burton June 3rd 1945', 'JVB 1958', '1968 Cooper', 'bewsh 1987', 'O. Bell 1968' and 'J Tyson 1862' (Plate 21). At second floor level the walls is entirely finished with plaster, except for the west end above the doorway, with a window in the centre with a modern two-light timber casement.



Plate 15 (left): Aperture blocked with a single slab on the west side of the ground floor of the north internal elevation, viewed from the south

Plate 16 (right): Aperture blocked with a single slab in the centre of the ground floor of the north internal elevation, viewed from the south



Plate 17: Remains of early beam projecting from the north internal elevation, viewed from the south-east



Plate 18 (left): Doorway at the west end of the first floor of the north internal elevation, viewed from the south-east

Plate 19 (right): General view of the east end of the north internal elevation, viewed from the south



Plate 20: Graffiti circle on the west side of the first floor of the north internal elevation, viewed from the south

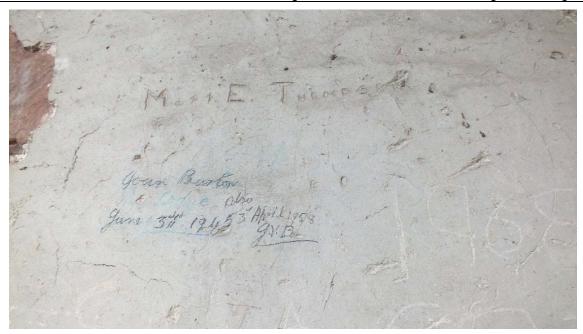


Plate 21: Example of graffiti on the east side of the first floor of the north internal elevation, viewed from the south

4.3.3 The east internal elevation is dominated by the large arched opening, which extends to first floor level and is finished with neatly dressed stones and has a slight plinth (Plate 22). There are various attached timber battens supporting electrical wiring and a large patch of plaster on the south side. The arched opening is filled with a modern stud wall of timber plank construction, housing a double plank and batten door, with diagonal battens, and a pedestrian plan and batten door. At first floor level there are three shallow voids on the south side cut into the stonework (Plate 23) and another cut into the north side of the arch, which evidently formed the housing for joists. At first floor level much of the wall is finished with plaster and there is a central window with a large rough timber lintel and modern two-light timber casement.



Plate 22 (left): General view of the east internal elevation, viewed from the west

Plate 23 (right): Joist slots cut into the south side of the east internal elevation, viewed from the north-west

4.3.4 The lower part of the south internal elevation is relatively unremarkable, although some of the blocks have dressed notches within them but these do not appear to correspond to any obvious use. A small part of the east end has been partially rebuilt and this section incorporates red brick (Plate 24) and there are numerous attached timber battens with electrical wiring and other fixtures attached. A cupboard sat against the wall obscures a small section near the centre and there is a large void below the modern first floor that presumably houses an earlier beams. First floor level is very similar, with the modern floor and associated handrail and a fixed work bench obscuring some areas of the west end. In addition, there are three narrow openings blocked with stone just below the step for the second floor (Plate 25). The second floor is finished with plaster and has a central window with a modern two-light timber casement.





Plate 24 (left): The east side of the south internal elevation showing the brick rebuild, viewed from the north

Plate 25 (right): General view of the south internal elevation showing the blocked slots, viewed from the north-east

4.3.5 Much of the west internal elevation is obscured by lime wash and attached fixtures (Plate 26), but the lower level has the outer edge of the large arched opening visible, which has been blocked with fairly random courses and incorporates a smaller pedestrian doorway. This has a piece of plywood fixed over it but clearly has dressed square surrounds (Plate 27). At first floor level there is further attached furniture obscuring much of the wall, and above this the second floor level is largely finished with plaster and has a central window with a large timber lintel and modern two-light timber casement.



Plate 26: General view of the west internal elevation, viewed from the east



Plate 27: the pedestrian doorway in the centre of the west internal elevation, viewed from the east

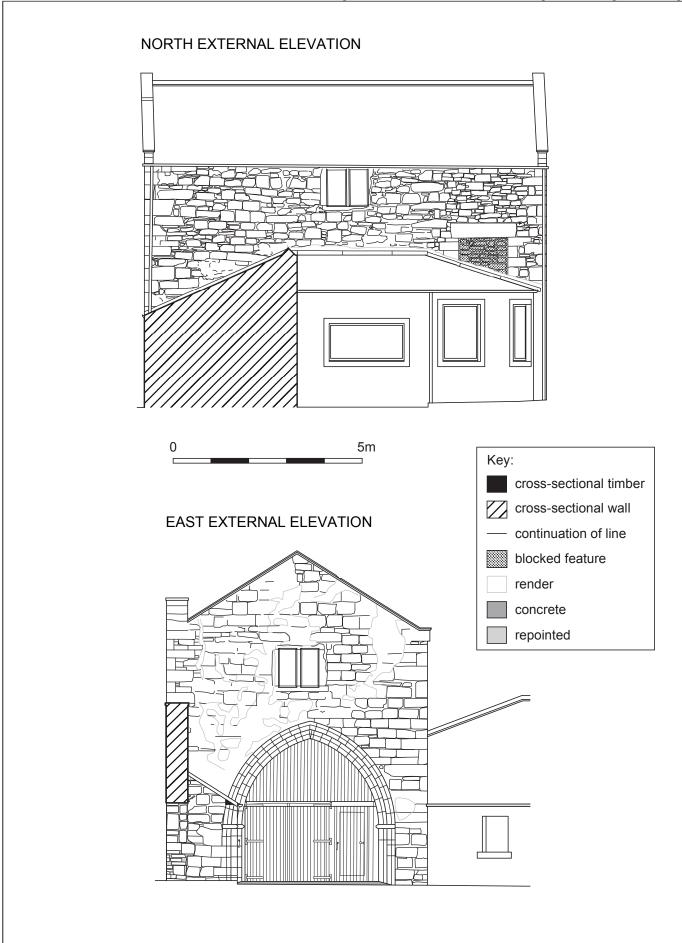


Figure 2: North and east external elevations

Client: Mr and Mrs Clarke
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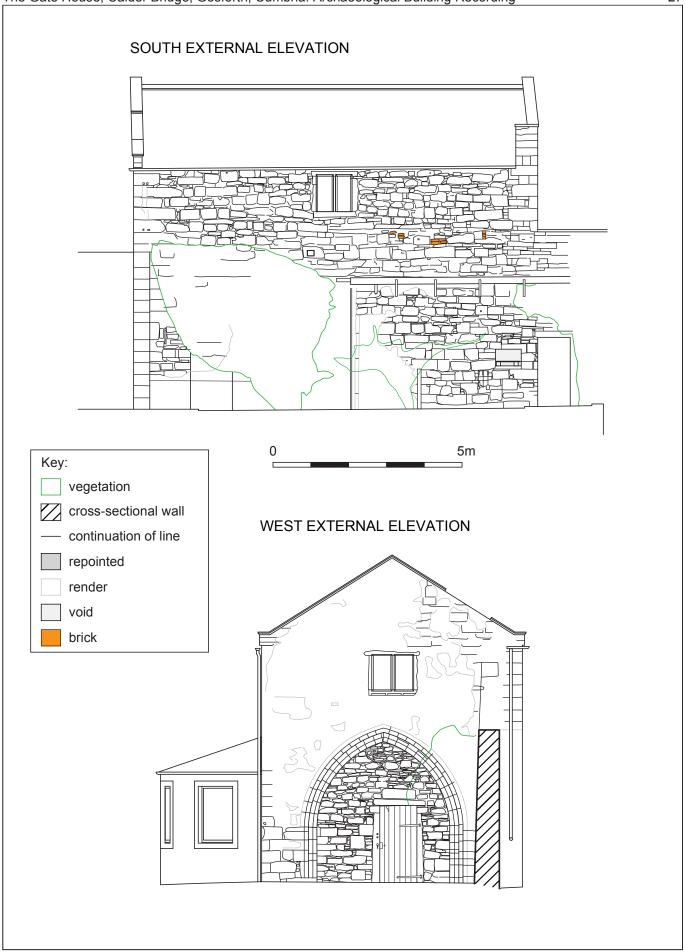
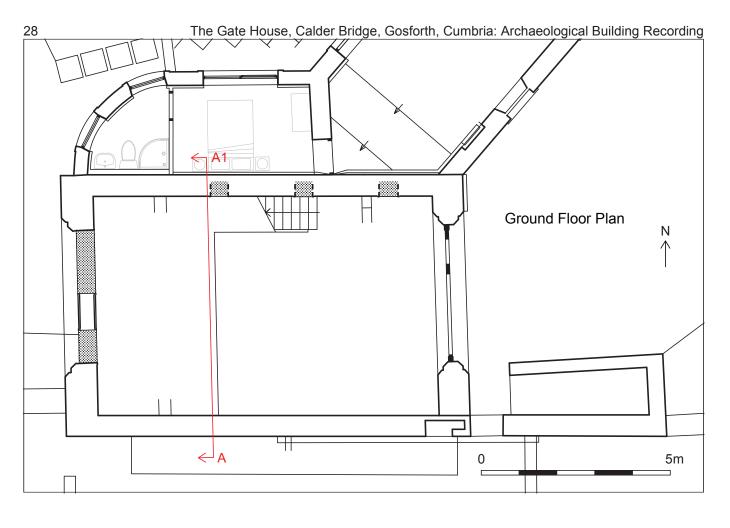


Figure 3: South and west external elevation



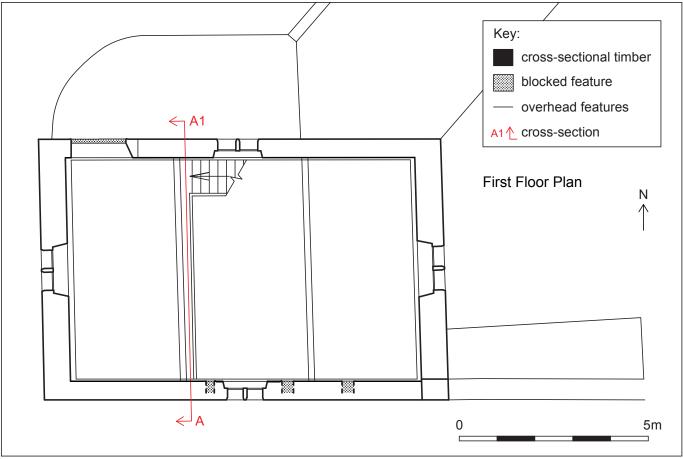
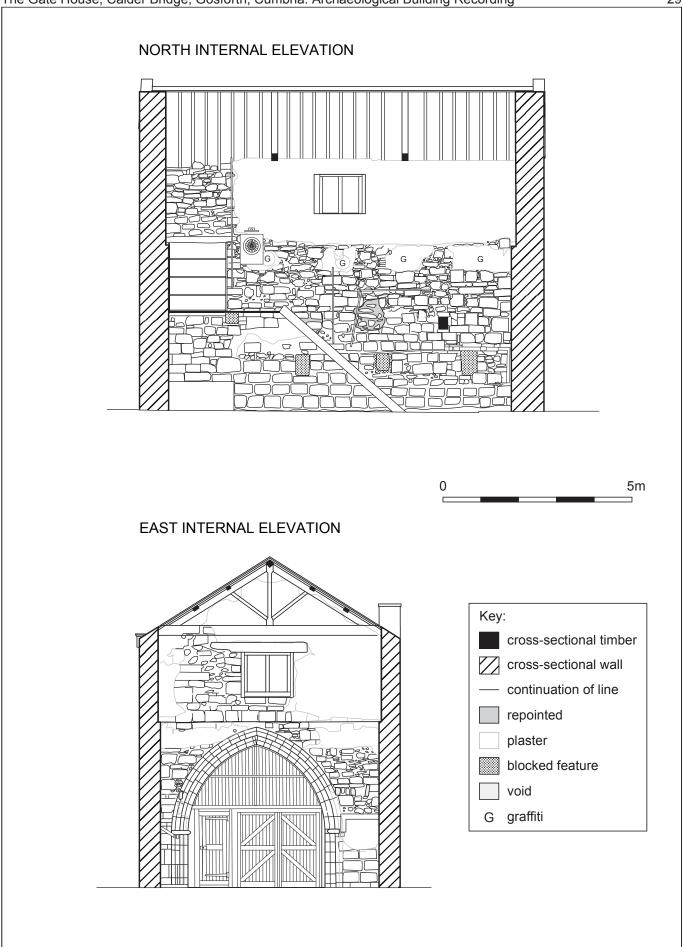


Figure 4: Ground and first floor plans



Client: Mr and Mrs Clarke
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Figure 5: North and east internal elevations

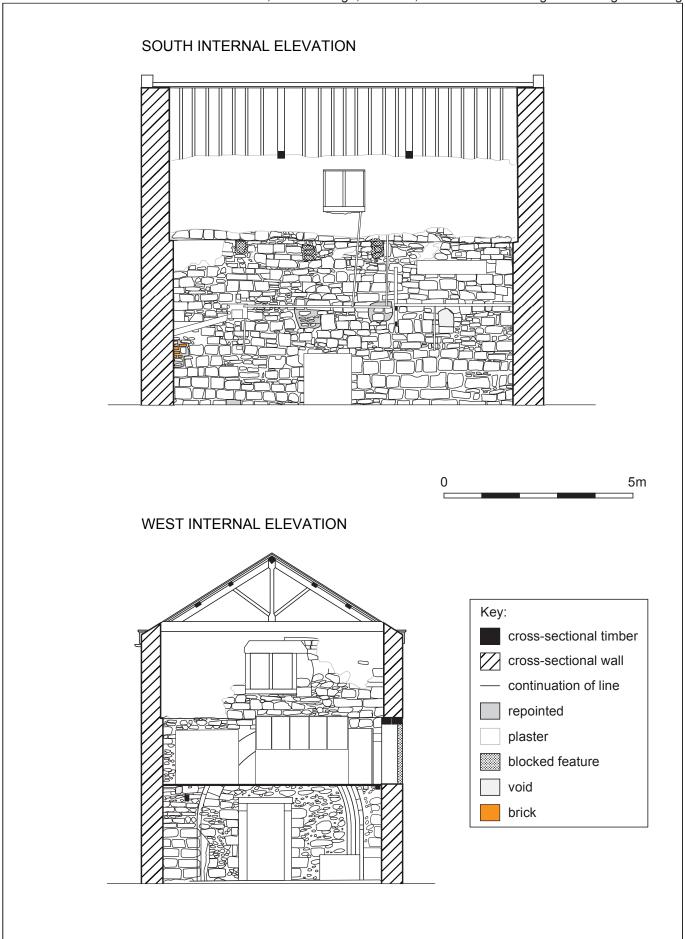


Figure 6: South and west internal elevations

Client: Mr and Mrs Clarke
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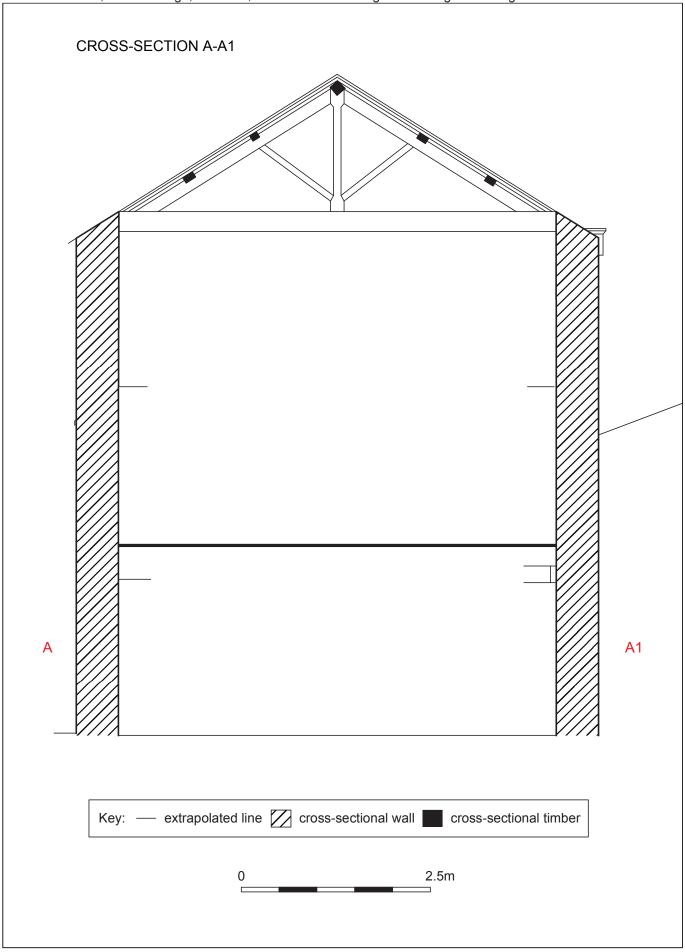


Figure 7: Cross-section A-A1

5. Discussion

5.1 Phasing

- 5.1.1 *Introduction*: the early origins of the building mean that there is considerable potential for alterations to have occurred but it appears that the original structure remained largely intact and relatively unaltered until the post-medieval period. The detailed investigation of the building combined with the documentary evidence has allows four main phases of development to be identified.
- 5.1.2 **Phase 1** (**medieval 13**th/**14**th **century**): it is evident that the extant building is essentially of medieval date, either 13th or 14th century, and formed a gatehouse for the medieval abbey. The exact arrangement is difficult to be certain of but there was apparently a row of small apertures along the ground floor of the north side, perhaps just ventilation slots (although they were evidently still visible when the site was first scheduled in 1915 and described as small windows; *Appendix 1*), and a row of smaller ones on the first floor of south elevation. Internally there was probably only a single floor, at second floor level, most likely accessed by a ladder. Externally the tall walls extending from the south side of the west and east elevations are likely to represent elements of the original precinct boundary of the abbey, especially as the east section is apparently keyed into the walls of the gatehouse and the west has a scar denoting this. It is conceivable that the gatehouse was in fact built onto the precinct wall, but there is no obvious change in the build line to denote this.
- 5.1.3 **Phase 2 (later medieval?)**: despite earlier suggestions (see *Section 3.2.2*) there is no evidence that the mullion window in the west elevation originally extended below, despite the presence of mullion heads in the sill, and it is more likely that this element was reused and that some or all of these windows were actually inserted at a later date given their form. The exact date at which this was done is uncertain, and could have been following the Dissolution but it is equally likely that they represent an alteration in the later history of the abbey, most probably utilising material brought from elsewhere on the site. They were presumably all present by the early 18th century since the painting of that date shows the east one (Plate 1). The need for windows in the top floor suggests that this space was latterly used as accommodation, presumably for whoever was controlling the gatehouse.
- 5.1.4 **Phase 3 (late 18th to early 19th century)**: following the Dissolution the abbey buildings and the wider site were put to various other uses, with at least one mansion being built on the site; the most substantial alterations occurring during the ownership of the Irwin family in the late 18th to early 19th century. The gatehouse was clearly no exception to this but seems to have at least largely survived intact and relatively unchanged until at least c1730, when Matthias Read's painting was produced. The plan of 1788, which does not show the gatehouse, might be taken as evidence that it was at this time roofless and essentially ruinous, which would indicate that it was redeveloped after this date. One of the major changes of this phase was the renewal of the roof, which can be dated on the basis of the truss form to broadly the late 18th to early 19th century (Brunskill 2002, 152-153). As stated by previous investigators of the abbey site, the gatehouse was clearly converted for use as an agricultural building, which is represented by this phase. In order to facilitate this an extra floor was added at current first floor level, the sawn-off beams evident in the north elevation and the void in the south forming the remains of this, as well as the joist holes cut into the east and west internal elevations. The graffiti on the north internal elevation indicates that this floor was in place from at least 1862 (see Section 4.3.2). In order to enable the creation of this new floor the large arched openings at either end were clearly blocked up leaving only small pedestrian doorways. A further pitching door was also added on the west side of the north elevation, resulting in a large part of the adjoining wall being rebuilt and the earlier upper floor must have been removed at this time. During the same period the south-east corner was also substantially remodelled in order to incorporate a fireplace in what is now the south external elevation and a flue. This clearly related to what must have been a small lean-to glasshouse outshut against the south elevation, which presumably acted as hothouse. The conversion of the gatehouse was presumably to at least initially facilitate its use as a hayloft, presumably serving the range of outbuildings attached to the north elevation, which the early illustrations show were probably stables or cow houses.
- 5.1.5 **Phase 4 (late 20th century)**: the building clearly retained this general form until the late 20th century, although it is possible that it was becoming somewhat derelict by the early 20th century (see

Plate 8). By the late 20th century it had been converted into a garage, with the arched opening to the east unblocked and the current door inserted and the Phase 3 floor removed and replaced with the current mezzanine. It is not clear exactly when this took place; the Listing states that it was in use as a garage by 1984 but the graffiti on the north internal elevation suggests that the Phase 3 floor was still in place as late as 1987 (see *Section 4.3.2*). The floor was most likely replaced during this period and following the conversion of the former outbuildings attached to the north elevation an additional extension was added to the west side of the north external elevation, leaving much of this side obscured.

5.2 Significance

5.2.1 As a Scheduled Monument the building is immediately of national significance. It is clear from the building recording that a considerable amount of medieval fabric has survived intact within the building, indeed it is almost certainly the most intact part of the abbey now remaining. However, it has seen a number of alterations, all of which have altered the character of the building both internally and externally but represent the different ways it has been put to use. The current proposals, essentially to form a sleeping area at first floor level and install a toilet below, a no more damaging to the historic fabric than the previous alterations, and to some extent it would be an improvement to replace the existing mezzanine, but there is a need for care in terms of the original wall finishes as it is possible that other, more significant, historic graffiti might be present in the areas of plaster that could not be accessed. In addition there is the possibility that below-ground remains of archaeological interest could be impacted upon by the creation of the upper floor and excavation for new services and so further archaeological monitoring might be considered necessary. Given the obstructions within the building during the recording, in particular the fixtures attached to the walls and the mezzanine floor, it would also be beneficial to be able to take additional photographs once the building had been cleared prior to any work taking place.

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Appendix 1: Scheduled Monument Information for Calder Abbey

(after Historic England 2018c)

Calder Abbey List Entry Summary

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance. This entry is a copy, the original is held by the Department for Culture, Media and Sport.

Name: Calder Abbey

•

List entry Number: 1007166

Location: Calder Abbey, Calder Bridge, Seascale, CA20 1DZ

The monument is centred on NY05110640.

The monument may lie within the boundary of more than one authority.

County: Cumbria
District: Copeland

District Type: District Authority
Parish: St. Bridget Beckermet
National Park: LAKE DISTRICT

Grade: Not applicable to this List entry.

Date first scheduled: 10-Apr-1915

Date of most recent amendment 06-May-2015

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: RSM - OCN

UID: CU 307

Asset Groupings

This list entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List entry Description

Summary of Monument

The upstanding remains, earthworks and buried remains of a medieval Cistercian abbey.

Reasons for Designation

Calder Abbey is scheduled for the following principal reasons: * Survival: a substantial proportion of standing medieval fabric survives, including considerable architectural detail of the claustral complex, together with earthworks and below-ground archaeological deposits; * Rarity: the 'Monk's Oven' is considered to be a rare survival of a medieval corn drying kiln and is among the best preserved in the country; * Potential: a large proportion of the site is undisturbed and unexcavated, including much of the claustral complex, and will therefore hold a high degree of potential for further archaeological investigation; * Documentation: Calder Abbey is relatively well documented in historical and archaeological terms, which provide a valuable contribution to our knowledge and understanding of the site.

History

From the time of Augustine's mission to re-establish Christianity in England in AD 597 to the reign of Henry VIII (1509-1547), monasticism formed an important facet of both religious and secular life in the British Isles. Settlements of religious communities, including monasteries, were built to house communities of monks, canons (priests), and sometimes lay-brothers, living a common life of religious observance under some form of systematic discipline. It is estimated that over 700 monasteries were founded in England. They belonged to a wide variety of different religious orders, each with its own philosophy: as a result, they vary in the detail of layout and appearance although all possess the basic elements of church, domestic accommodation, and work buildings.

Calder Abbey was initially a Savigniac foundation but later became a Cistercian monastery. The Savigniac Order developed in France in the early 12th century as a reaction against the corruption and excesses which characterised established orders. The founding house at Savigny in France was established between 1109 and 1112. Their order was based upon the Rule of St Benedict but included greater simplicity of life and seclusion from the secular world. The order of Savigny established 13 houses in England and Wales before being absorbed into the Cistercian order in 1147. Their monasteries were founded on lands so infertile or exposed that the communities were unable to survive. Several moved sites before eventually becoming Cistercian houses. The Cistercians, known as the 'White Monks' from their undyed habits, believed in a life of austerity, prayer and manual labour. They established a total of 62 abbeys in England.

In 1135 a group of twelve monks were sent from Furness Abbey, Barrow-in-Furness, Cumbria, to found the Savigniac abbey at Calder, under the leadership of Abbot Gerald. The land was granted by Ranulf le Meschin, Lord of Copeland who had his seat at nearby Egremont Castle. Its first possessions, confirmed in a papal bull, included a mill, a house, two saltworks in Whitehaven, fisheries of Derwent and Ehen, and pannage for pigs. In 1138 the monks were driven out by Scottish raids and returned to Furness Abbey with their possessions in a cart pulled by eight oxen. Once they arrived there was a dispute; Abbot Gerald was unwilling to resign his abbacy, and they were not admitted. The monks moved to several sites before settling near Coxwold, North Yorkshire, where they established Byland Abbey. In about 1143 a second group of monks led by Abbot Hardred was sent from Furness to re-found Calder Abbey, this time successfully. It became Cistercian after the Savigniac Order was united with the Cistercians in 1147.

Initially, at least, Calder Abbey was probably constructed in timber but by 1175 a stone church had been built, of which the Norman west door is the main survivor. Between 1215 and 1240 the abbey was rebuilt in the Early English style by Thomas de Multon of Egremont. It was never a wealthy monastic house. A papal taxation survey in 1291 reveals that its income from 'temporalities' (i.e. possessions other than churches) was £32. By 1314 income had dropped to just £5, probably due to the wars with Scotland raids and a series of bad harvests. In 1535 it is recorded that there were 'gardens, small orchards, close and [a] mill within the precincts', and a survey of the following year shows that its total net income was just over £93 (Thorley 2004, 154).

The Abbey was dissolved in 1536 and purchased by Thomas Leigh who stripped the roofs and sold the contents. The south range of the cloister was altered to form a house, now known as Calder Abbey House. Stone was gradually carted off for use in nearby properties. Eventually the south transept of the church was altered to form a cow-byre and the west gatehouse became a hayloft. The abbey is depicted in a painting of circa 1730 by Matthias Read in Abbot Hall Art Gallery, Kendal, which shows the church and east range largely in its current ruinous condition but with gabled ranges on the south and west side of the cloister, and a barn at the north-west angle of the church. Also shown is: a long rectangular gabled range and two smaller buildings north of the claustral complex; a churchyard or walled garden at the east; the west gatehouse; and a fishpond to the south-west. An estate survey plan of 1788 in Whitehaven Archive Centre depicts the abbey and surrounding land.

Calder Abbey House was re-fronted by the Senhouse family in the 1780s, who diverted the road and planted woods. In the 1840s Mary Senhouse married Thomas Irwin, and together they had the north wing of the house rebuilt, a west porch added, and a new riverside walk created to the parish church at Calder Bridge. In the late C19 part of the abbey ruins were restored by the owner Thomas Rymer,

including the west doorway and chapterhouse. Further repairs were carried out to the chapterhouse vault at the beginning of the C21 when an asphalt covering was applied.

INVESTIGATION HISTORY In 1881 a small excavation was undertaken on the site by Dr Parker and Rev. Arthur Loftie when the steps to the west door, part of the pulpitum (chancel screen), the chancel and part of the south transept were excavated. In 1947 some trial-pits were dug on the site of the monastic infirmary, to the south-west of the cloister, by Mr Marlow of the Abbey Estate. A measured survey was carried out in 1985-86 by Cumbria County Council, which identified the earthworks of a former fishpond to the east of the abbey, among other features.

Details

PRINCIPAL ELEMENTS The upstanding remains, earthworks and buried remains of a Cistercian abbey, known as Calder Abbey. It is situated on gently sloping ground at the foot of the Calder River valley, 1km north-east of Calder Bridge.

PRECINCT The monastic precinct at Calder Abbey is considered to have covered about 30 acres. There are no known traces of a precinct boundary, although the west gatehouse remains upstanding. Beyond the gatehouse are the monastic church and cloister and further east (in the field now called 'Abbey Mews') were several other buildings, now surviving as buried remains; the Infirmary, agricultural buildings and mill, as well as the upstanding remains of a corn-drying kiln. The abbey water-supply was obtained by a stone-lined leat from the river to the north-east, which remains intact for a large part of its course.

THE CLAUSTRAL PLAN The ground plan of the claustral complex consisted of a large abbey church at the north and domestic buildings surrounding a cloister immediately south of the nave. In a clockwise direction these comprised: an east range with a book cupboard, chapter house, slype (covered passage), parlour and monks' dorter (dormitory); a south range with a warming house, monks frater (refectory), kitchen and probably a reredorter (communal latrine); and a west range with a cellar. To the east of the east range of the cloister was an infirmary hall.

THE CHURCH The monastic church, which is about 45m long and 25m wide across the transepts, survives as upstanding and buried remains. It is cruciform in plan with an aisled nave, a crossing tower, north and south transepts each with two chapels, and a rectangular chancel. This was a typical Cistercian layout except for the unusual provision of the crossing tower. The church is now roofless but the upstanding remains include part of the west front, the north arcade, crossing tower, the north and south transept, and the west end of the chancel. In common with the rest of the claustral complex, it is built of coursed and dressed red sandstone with a rubble stone core. The north part of the west front remains upstanding to nearly 4m high and includes the west doorway into the nave. It was built in about 1175 and has a round-headed arch of three orders springing from water-leaf capitals on colonnettes. The nave is five bays long with foundations of the pulpitum (chancel screen) in the second bay from the crossing. Only the north arcade, built between 1215 and 1240, remains upstanding. The north and south aisle walls are no longer visible but will survive as below-ground foundations. The north arcade is formed of five pointed, chamfered arches carried on alternating octagonal and quatrefoil piers with water-holding bases. The third pier from the west is distinguished by zig-zag leaf decoration, which is also seen on a hoodmould at nearby Egremont Castle.

Further north the crossing tower remains upstanding to about 2m above the level of the arches. The arches are twice chamfered with canted responds at the north and south and semi-circular responds resting on brackets at the east and west. The scar of a steeply pitched roof can be seen on the west side of the tower. Further successive scars indicate downsizing over time. The north transept retains the (now blocked) arch of the north chapel arcade, springings of a vaulted ceiling, and an early C13 north doorway; a pointed arch of two moulded orders.

The chancel is cut short at the west reveals of a pair of tall transomed lancet windows. Partial excavation has recorded the footings of the walls beyond. At the west end, near the crossing tower, are four effigies; three C14 recumbent knights in armour and an abbot under an ogee canopy. In the south wall are three sedilia (seats for the clergy) and a pointed doorway leading to the south transept chapel. These are gathered into one composition under trefoil-headed arches.

The south transept has two bays of pointed arches, supported on a central quatrefoil pier, leading into two chapels at the east. Above these arches is a triforium arcade formed of chamfered and pointed arches with large quatrefoils in the spandrels. In the east and west wall of each bay is a set of two lancet windows, and above the latter is a further set of tall trefoil-headed lights. A pointed doorway 2.7m above floor level in the south wall marks the position of the timber night-stair giving access to the dorter and a newel stair in the tower.

EAST RANGE Abutting the south transept is the chapter house. It is approached from the cloister through a pointed doorway of three moulded orders, set between two similar openings containing Y-tracery. That at the north provides access to a small rib-vaulted book cupboard. The chapterhouse was formed of three rib-vaulted bays although only the eastern vault remains intact. In the east wall is a late C13 window with some remains of geometrical tracery. Immediately south of the chapterhouse is a slype and an undercroft. Above them was the dorter (dormitory), lit by a row of lancet windows. It was linked to the monk's night-stair by a passage across the chapterhouse.

SOUTH RANGE The south range originally incorporated the warming house, kitchen, frater, and probably the reredorter. However the remains of this range are now largely incorporated into Calder Abbey House (Grade I listed), which is excluded from the scheduling.

WEST RANGE AND CLOISTER The cloister originally incorporated an open courtyard surrounded by an ambulatory (covered walkway), and the west range provided the monks cellarium (cellar). These buildings are no longer standing but will survive as below-ground foundations. Attached to the north-east angle of the church was a barn that was added in the C16 or C17 and will also survive as below-ground remains. It is shown on the 1788 abbey estate plan.

Immediately south-west of the cloister are the buried remains of another building, recorded as earthworks during a measured survey in 1985-6. It is partly covered by building stone from the abbey.

CEMETERY Immediately to the east of the chancel of the abbey church, in the field now known as Abbey Mews, are the buried remains of the cemetery.

INFIRMARY The monastic infirmary survives as below-ground remains immediately south-east of the claustral complex, within Abbey Mews. Partial excavation has indicated that it is L-shaped in plan with a main range, approximately 37m long and 9m wide, and a projecting south wing. The walls are constructed of freestone masonry and rubble to nearly 1m wide, which indicates that they were dwarf walls carrying a timber superstructure. A doorway is situated at the east end and internally the building is partitioned by cross-walls.

WEST GATEHOUSE The west gatehouse, a C14 building that was converted to agricultural use in the C17 or C18, remains upstanding and is Grade II* listed. It is two storeys high and built of coursed and dressed red sandstone with a gabled slate roof. In the east and west elevations are pointed wagon arches of two chamfered orders. The west arch springs from chamfered imposts but the east arch, now blocked by coursed rubble, is continuously moulded. In the north wall are three small splayed windows, now blocked, to the ground floor and an inserted doorway. At first floor level there are C17 two-light mullioned windows in each side. Internally there are two king post roof trusses and a C20 timber gallery at the west end. The former byre range (now a house) attached to the north, the boundary walls at the east and west, and the lean-to at the east, are all excluded from the scheduling. The timber doorways in the east and west elevations of the gatehouse and the C20 timber gallery fitted internally are also excluded but the ground beneath them is included.

MONK'S OVEN, MILL AND DOVECOTE About 115m north-east of the church is a (Grade II* listed) building that is traditionally known as the 'Monk's Oven', although it probably served as a corn-drying kiln. It is shown on the 1788 abbey estate plan. The building is constructed of coursed rubble but much of the exterior stonework has been robbed out leaving an earth-covered mound. At the south is a moulded round-headed arched doorway with large, prominent, voussoirs. Internally it is nearly 4m in diameter and about 1.5m high with a tightly-packed stone rubble floor and domed roof. Adjacent to the oven are the buried remains of a mill that was fed by the stone-lined leat that runs north-east to south-west to the cloistral complex. Approximately 22m south-east of the 'Monk's Oven' are the buried remains of a building with a circular foundation, probably a dovecote.

About 50m WNW of the 'Monk's Oven' are earthworks of possible building foundations, indicating a long rectangular range orientated east-west with internal (north-south) partition walls. It appears as cropmarks on aerial photographs taken in February 1981.

Immediately north-east of the 'Monk's Oven' is a C19 turbine house; a rectangular building with a crow-stepped gabled roof, which is excluded from the scheduling.

FISHPOND Approximately 145m east of the church are the earthworks of a medieval fishpond recorded by measured survey in 1985-6. It is orientated north to south and forms a broadly rectangular depression about 37m long by 15m wide. A bank, about 1m high and 5m wide, delimits the west side.

EXCLUSIONS The monument excludes all modern fences and fence posts, gates and gate posts, railings, garden ornaments, telegraph poles and oil tanks but the ground beneath these features is included. Calder Abbey House and the C19 turbine house to the north-east are completely excluded.

Selected Sources

Books and journals

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Loftie, A, 'Calder Abbey' in Transactions of Cumberland and Westmorland Archaeological and Antiquarian Society, Vol. 8, (1886), 467-504

Fair, M, 'Calder Abbey' in Cumberland and Westmorland Antiquarian and Archaeological Society, Vol. 53, (1954), 81-97

Other

Cumbria County Council HER, Measured Survey Plan of Calder Abbey for Cumbria Historic Parks and Gardens Register Review (1985-86)

English Heritage Archive, Aerial Photographs of Calder Abbey taken 10 Feb 1981, Ref: NY0506_1 CLU1637 30

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Oil Painting entitled 'Prospect of Calder Abbey' by Matthias Read, circa 1730, Abbot Hall Art Gallery, Kendal, Cumbria

Whitehaven Archive and Local Studies Centre, May 1788 Survey and Plan of Calder Abbey and Stephney estates of Joseph Tiffin Senhouse, Surveyor R Lawson, Ref: YDX37/5 and YDX37/2/1

Appendix 2: Listed Building Information for the Gatehouse

(after Historic England 2018b)

Name: GATEHOUSE TO CALDER ABBEY

List entry Number: 1086629

Location: GATEHOUSE TO CALDER ABBEY

County: Cumbria

District: Copeland

District Type: District Authority
Parish: St. Bridget Beckermet
National Park: LAKE DISTRICT

Grade: II*

Date first listed: 14-Jul-1989

Date of most recent amendment: Not applicable to this List entry.

Details:

ST BRIDGET BECKERMET CALDER ABBEY NY 00 NW 3/58 Gatehouse to Calder Abbey - II* Gatehouse to Calder Abbey, used as a garage at time of survey (April 1984). Probably C14 with later alterations including conversion to agricultural use in CI7 or C18. Stone blocks with quoins. Graduated slate roof (of reduced pitch?) renewed in 1970s. 2 storeys, 2 bays. Wide, pointed wagon arch in each gable end of 2 chamfered orders. Chamfered imposts and plinths to eastern arch, western arch blocked with door inserted. 3 small splayed windows, now blocked, to ground floor left in north wall with inserted loft door to right; 2-light CI7 unglazed mullioned window to 1st floor on each wall, all probably re-used. Stone copings and kneelers to roof. Interior: floor removed during renovation; single king post roof truss. Byre range adjoining to north not of interest. The gatehouse forms a major part of an important group of monastic buildings.