WALTERCLOUGH PIT BUILDINGS, SOUTHOWRAM, HALIFAX, WEST YORKSHIRE

BUILDING RECORDING

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On behalf of

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EXECUTIVE SUMMARY

In December 2011, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Messrs D and G Gibson of Harley Head Farm, Hipperholme, through Townsend Planning Consultants Ltd., to undertake a programme of building recording at the former Walterclough Pit, Southowram, Halifax, West Yorkshire (NGR SE 1255 2418 centred). The project involved an architectural and archaeological survey of the former pit buildings, which was achieved through a drawn and photographic record, augmented by a descriptive report. The survey was made a condition of planning permission granted by Calderdale Metropolitan Borough Council for the conversion of the former mine buildings to residential accommodation.

The pit was apparently opened in 1888, and comprised one of a belt of collieries to the east of Halifax forming part of the West Yorkshire coalfield, stretching between Elland in the south to Queensbury in the north. Walterclough Pit worked the local coal, fireclay and ganister deposits. The early history of the pit remains obscure, and using cartographic and photographic evidence, the survey work has catalogued a number of discrepancies which may challenge the 1888 opening date. Between 1893 and 1907, a large building, presumably housing a steam winding engine and associated boiler house, had been erected to the south-east of a pair of shafts. The complex underwent substantial changes and expansion between 1907 and 1922, and the combined evidence suggests that this is most likely to have taken place just before or during the First World War, as a result of its purchase by what was to become Brooke's Limited in 1906.

The principal reason behind Brooke's purchase may have been access to the pit's fireclay reserves, rather than coal deposits. The changes instituted during this period not only increased the capacity of the pit, but also improved its transport links with the construction of an aerial ropeway to Hove Edge to the east of the complex. One of surviving buildings recorded by the survey formed a winding house for the western shaft, which was built between 1907 and 1922. Despite later alteration, the building preserves evidence for the form and arrangement of a horizontal steam winding engine. A second building erected during the same period was associated with miners assembling to either enter or leave the workings, and preserved probable early 20th century tally holders with enamelled discs suggest that up to 60 people may have been working underground at Walterclough Pit at any one time. This building appears to be built from bricks manufactured locally by Brooke's Limited, and it is likely that some of the flagstones, coping and other dressings surviving around the complex are also products of the same works.

Despite appearances, cartographic evidence demonstrates that neither of the two fan houses surviving at the time of the survey were built before 1948, although both conform in placement and function to standards for ventilation which had been established before the First World War. The ventilation system at Walterclough operated on the exhaustion principle, and it was usual practice to place the fan or fans on the surface, near the mouth of the upcast shaft, but at a suitable distance to ensure that no damage occurred in the event of an explosion. Communication between the upcast shaft and the fans was effected by a fan drift; the position of the fan drift at Walterclough indicates that, at the time it was built, the western shaft was the upcast shaft. Both fans had a single inlet from the drift, and the former arrangement of the airtight doors in the associated passage shows that they could be used either singly or in unison. It is likely that one of the fans was a variant of the 'Sirocco' type, a small diameter, quick-running fan directly driven by an electric motor mounted on the same bed plate. Mine offices and an ancillary building were added between 1938 and 1948, but the majority of the southern block of buildings, including showers, changing rooms and storage areas, were added to the complex after c.1950.

Walterclough Pit remained in the private ownership of Brooke's Limited until the firm closed in 1969, at which time the pit was also abandoned.

1 INTRODUCTION

Reasons and Circumstances for the Project

1.1 In December 2011, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by Messrs D and G Gibson of Harley Head Farm, Hipperholme, through Townsend Planning Consultants Ltd., to undertake a programme of building recording at the former Walterclough Pit, Southowram, Halifax, West Yorkshire (NGR SE 1255 2418 centred). The project involved an architectural and archaeological survey of the former pit buildings, which was achieved through a drawn and photographic record, augmented by a descriptive report.

1.2 The building recording was made a condition of full planning permission approving the conversion of the pit head complex to residential accommodation, granted by Calderdale Metropolitan Borough Council on 15th October 2009 (application 09/01101/FUL, condition 2). The scope of the building recording was defined by a specification prepared by the local archaeological curator, the West Yorkshire Archaeology Advisory Service (WYAAS) (see Appendix 2), and the work was funded by Messrs D and G Gibson.

Site Location and Description

1.3 The buildings forming the subject of this survey are set in an isolated location in the base of the Walterclough Valley, within the historic township of Southowram, c.1.6km to the west-south-west of Hipperholme, and c.3.2km from the centre of Halifax, in West Yorkshire (see figure 1). The site stands on a raised area of ground at the base of the western slope of the valley, on the south-west side of the Red Beck, c.1km to the east of Lower Clay Royd Farm (see figure 2). The site is accessed by a farm track branching off the south side of Walter Clough Lane, which itself runs west from Sutcliffe Wood Lane.

1.4 The former pit head complex is essentially divided into two groups of structures, a northern group which includes a winding house, and a southern group which includes mine offices and showers. None of the buildings are Listed as being of Special Architectural or Historic Interest, and they do not appear to have been the subject of any previous detailed architectural or archaeological study, although a limited amount of information, including two valuable historic photographs, is available online. As part of the planning application, a structural survey of the complex was undertaken (Fennell, Green & Bates 2007).

Aims and Objectives of the Project

1.5 The primary aim of the survey work was to identify and objectively record, by means of photographs, annotated measured drawings and detailed descriptive text, any significant evidence for the original and subsequent historical form and functions of the former mine buildings, and to place this record in the public domain by depositing it with the West Yorkshire Historic Environment Record (Registry of Deeds, Newstead Road, Wakefield, WF1 2DE). The second aim of the work was to analyse and interpret the buildings as an integrated system intended to perform a specialised function, and place them, as far as was possible, within their historical, industrial and economic contexts.

Survey Methodology

1.6 As noted above, the scope of the building recording work was defined by a specification prepared by WYAAS, the local archaeological curators (see Appendix 2). The specification required the buildings to be the subject of a detailed drawn, photographic and descriptive record, with the site work being supplemented by a limited amount of documentary research. The resulting survey conforms to a Level 2 descriptive survey as described by English Heritage (2006, 14).

1.7 The on-site drawn and descriptive recording was undertaken in March and June-July 2012, with the photographic recording being completed on 25th June 2012. The fieldwork records were approved by WYAAS on 20th July 2012.

Documentary research

1.8 The WYAAS specification suggested that information relevant to the site might be held in the local history collection of Brighouse Library. However, after speaking to the staff there, it was established that no material was present. The following archives or repositories of information were therefore consulted in order to inform the on-site recording, as well as conducting comparative research using readily available secondary sources. The principal archives consulted were:

- Local Studies and Reference Collection, Central Library, Halifax;
- West Yorkshire HER, Registry of Deeds, Wakefield;
- West Yorkshire Archive Service, Calderdale office, Halifax;
- Yorkshire Archaeological Society, Claremont, Leeds.

1.9 A full list of primary and secondary sources used in the preparation of this report is given in the bibliography (Chapter 5) below.

Measured survey

1.10 The WYAAS specification noted that existing plans and elevations of the complex, produced by Fennell, Green and Bates, could be used as the basis for the drawn record. In the event, no such plans or elevations were forthcoming, and so a new survey was produced. Prior to the plans being made, the interiors of all the buildings were cleared of any stored material and debris, and swept clean by Messrs Gibson.

1.11 The drawn record comprised a ground floor plan of the northern group of buildings, and a ground and first floor plan of the southern group of buildings, prepared at a scale of 1:50. The plans show all significant details such as inserted or blocked openings, original fixtures and fittings, and details of items relating to original and subsequent uses. In addition to the floor plans, a transverse section at a scale of 1:50 was constructed through the winding house, together with an elevation of the east internal wall, showing structural information that would otherwise have been obscured by the roof truss on the section.

1.12 The information for the drawn record was captured using both traditional hand-held and remote measurement techniques. Final inked drawings were then produced by hand to publication standard, and are presented as reduced versions of the full sized field drawings using conventions established by English Heritage (2006, 18-37).

Photographic recording

1.13 The black and white photographic record was achieved using a Mamiya 645 medium format camera with perspective control, while the 35mm colour record was produced using a Pentax 35mm camera with a variety of lenses. English Heritage photographic guidelines were followed (English Heritage 2006, 10-13). A total of 87 black and white shots were taken, and the negatives were printed to a size of 7" by 5", with a limited selection reproduced at 10" by 8". A total of 25 35mm colour slides were also taken. Subject to access and other safety considerations, all photographs contain a graduated scale, and artificial lighting in the form of electronic flash and flood lighting was used as necessary. All photographs have been clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and cross referenced to film/negative and plate numbers as required by the WYAAS specification. All photographic film was exposed and processed to ensure high quality definition, and processed to archival standards according to manufacturer's specifications.

1.14 The photographic record (see Appendix 1) includes a register detailing the location and direction of each shot, for both black and white prints and colour slides. The various ground floor plans of the buildings have also been used to identify the position and direction of each shot. A complete set of good quality copies of the black and white photographs are also reproduced in Appendix 1.

Written record

1.15 Sufficient detailed notes and observations were made in the field to allow a detailed descriptive record of the buildings forming the subject of the survey to be prepared. Following discussion with WYAAS prior to the start of the project, it was agreed that a requirement in the specification for the preparation of Room Data sheets could be waived.

Survey Products

Survey report

1.16 This report forms a detailed written record of the former mine buildings, prepared from the sources of information set out above, and analyses their form, function, history, and sequence of development, as far as is possible using the previously gathered information. The buildings are also placed within their historical, industrial and economic contexts where possible, using the available documentary and secondary evidence.

Project archive

1.17 A fully indexed project archive has been prepared, ordered and indexed according to the standards set by English Heritage (EDAS site code WCM 12). The archive comprises primary written documents, field notes, documentary material, photographic contact sheets, a copy of the report, and an index to the archive. This archive has been deposited with the Calderdale office of the West Yorkshire Archive Service, while the photographic prints and negatives, and 35mm colour slides, have been deposited with the WYAAS HER.

2 HISTORICAL DEVELOPMENT

Introduction

2.1 The historical development of Walterclough Pit is outlined below, drawing on the sources and repositories of information listed above in Chapter 1 and in the bibliography (Chapter 5) below. In the following text, as far as possible, the terms used are those given in an early 20th century reference work on contemporary mining practice (Bennett College c.1910).

The Nineteenth Century

2.2 Walterclough Pit was not the first industrial development in this part of the Walterclough Valley, nor was it an isolated colliery. It comprised only one of a belt of collieries located to the east of Halifax forming part of the West Yorkshire coalfield, stretching between Elland in the south to Queensbury in the north; the nearest colliery to Walterclough was at Sunny Bank, a short distance to the north-west. In addition to coal mining, the valley sides were also intensively developed for quarrying in the second half of the 19th century. The 1854 Ordnance Survey 6" to 1 mile map shows limited sandstone quarrying around Hove Edge and Wood Bottom, on the north valley side, but by the end of the 19th century, extensive quarries were located between Hipperholme and Hove Edge, with a further extensive area of quarrying south of Lydgate.

2.3 As would be expected, there was also textile manufacture in the district. In 1854, the "Walter Clough Mill (Woollen Cotton Silk & c)" stood just to the north-east of where the colliery was later to be established (see figure 3, top). The mill is depicted as a broadly L-shaped range of buildings, aligned north-east/south-west, set just to the south of the Red Beck. In the mid 19th century, the mill machinery was evidently still waterwheel driven, as a large mill pond or dam is shown to the west of the mill, with a head race taken off Red Beck to the north of Dib Dike Lane and a "Bywash" or overflow leat returning to the beck from the mill pond. The mill was accessed by a trackway leading off Dib Dike Lane, which is now a footpath and part of the access to Lower Clay Royd (farm). It is not certain exactly when the mill was established, but Pigot's 1829 trade directory lists Abraham Wood of Walter Clough Mill as one of the worsted manufacturers attending the market in Halifax (*www.genuki.org.uk*). The 1841 census lists the Mortimer family in two houses at the mill, all listed as "wool spinners" (TNA HO 107, 1303/12). Cartographic evidence indicates that the mill had either largely been demolished or was derelict by the 1890s, although there may have been some later occupancy of the houses (see below). The mill was completely destroyed by 1922, when spoil tips from the pit covered the site (see figure 5, top). However, the remains of the mill pond still survive, on the east side of the access track to the pit.

2.4 It is generally stated that Walterclough Pit opened in 1888, and was one of the largest coal mines in the area, the workings extending to a depth of 100 yards to exploit the local coal and fireclay seams (Malcom Bull's Calderdale Companion). If the colliery opened in 1888, then shaft sinking must have commenced sometime previously, perhaps in 1887, although it has not been possible to discover who originally sank the shafts or owned the colliery. A sketch drawing of underground working at Walterclough during the 1920s, apparently made from memory by a former employee (J. Aked) in the 1960s (WYAS WYC Misc 365), notes that "*This Pit had worked the Halifax Hard Bed, Middle Band, 36 Band, Silica Rock and Soft Bed. Closed in 1960's. Main Shaft 90 yards to Soft Bed*". The sketch shows the 'Halifax Hard Bed' being worked by a miner in a seated position, cutting the coal.

The coal overlies a bed of ganister and beneath this is the fireclay. The Westphalian fireclays of West Yorkshire were an important source of refractory clay for the iron and steel industry, but were also much used for the manufacture of sanitary ware, tiles, pipes and pottery. The fireclays occurred within coal deposits, including those worked at Walterclough such as the 'Hard Bed', and the 'Thirty-Six Yard Band' (or 'Hard Bed Band'). The same coal deposits were also worked for ganister, which was used for silica bricks and furnace lining but also extensively for road repairs in Yorkshire (Smith 1974, 361-371).

2.5 The colliery is shown, but not named, on the 2nd edition Ordnance Survey 6" map of 1895, to the immediate south-west of the mill complex. More detail is provided by the Ordnance Survey 25" map of 1893 (see figure 3, bottom). By this time, the core of the mill complex had been demolished and is shown as being unroofed, although there are other buildings representing part of the north-east end of the large structure shown in 1854; the complex is named as being disused. The colliery, again not named, was accessed by a track running south-east from Dib Dyke Lane. Two shafts are marked, on the north-east and south-west sides of a large sub-oval mound of spoil, revetted to the north-eastern side only. Curiously, the only standing structure shown is a small square one to the immediate north-east of the spoil mound, although there is a larger unroofed rectangular structure to the south-east of the spoil mound and a large sub-rectangular water-filled pond or reservoir to the south-west.

2.6 Further valuable evidence as to the early appearance and operation of the pit is provided by a probable late 19th century photograph (Malcolm Bull's Calderdale Companion), although it is not easy to relate the photographic to the cartographic evidence (see figure 4, top). Writing on the rear of the photograph dates it to c.1850, which must be erroneous - given that the colliery did not open until 1888, it must more probably have been taken in about c.1890-95. Crucial to the interpretation of the photograph is an aerial ropeway shown in the background running up the valley side. The notes on the photograph state that: "*<u>Note</u> ropeway – This is not the one which operated to Hove Edge from the 1914 war till the 1950s but A PREVIOUS ONE operating to Pier Head. Here they were picked up by horse and cart (Hanson Marshall said he remembered them as a boy). When the pit ceased 2 cottages were built for pit employees. This photograph was in possession of one such family*". Hove Edge is clearly marked on maps at the top of the north-western slope of Walterclough valley, and was the destination for a later ropeway (see below). Other information states that the photograph records "*The winding gear and the Pier Head community at the Walterclough Pit*", which implies that Pier Head was actually at the pit. "Pier Head" is listed on the 1911 census as being located between the entries for Upper Clay Royd and Thorn Tree Cottages (see below), and it must lie at the pit.

2.7 Both the layout of field boundaries shown on the photograph, and the layout of the structures, appear to match 1893 25" Ordnance Survey map most closely if the photograph is taken to be looking south-west, i.e. up the south-western slope of the valley. However, there is no other evidence that a ropeway was ever located on this slope, and the buildings in the left foreground of the photograph which must have housed the winding engine appear to be either disused or more likely roofless in 1893. The photograph shows a single wooden pit-head gear or frame over the shaft in the foreground, with cross-bracing between the uprights or stanchions, surmounted by a pair of pit-head pulleys; the accompanying notes state that an open cage was in use, that could take two men or mineral (coal or clay) as cargo. Numerous large-diameter flanged pipes are stacked in the vicinity. There also appears to be a second shaft in the background, as shown in 1893, but without any

pit-head gear. Both shafts are located on a raised area of ground, revetted by very substantial drystone walls up to 3m in height, containing narrow gaps or recessed panels. Close to the pit-head gear, in the foreground of the photograph, there is a two storey brick building with a pitched slated roof and a ridge stack at one end, also set on a tall revetment wall. A track runs between the revetment and two buildings on the left hand side of the photograph. Both these buildings are built of thinly coursed and squared stone, with pitched slated roofs and corner quoins. The building in the foreground was apparently lower than that to the rear. The latter appears to have had cables running from it towards the pulleys mounted on the wooden pit-head gear.

The Twentieth Century

2.8 It is stated that, as a clay and coal quarry, the Walterclough Pit was bought in 1906 to supply coal and fireclay for a brickworks near to the works of the 'Nonslip' Stone Company (Malcolm Bull's Calderdale Companion). This company had been set up by Joseph Brooke to produce 'Silex' non-slip stone flags. Brooke (1818-1876) was born in Northowram and in 1840 he founded the Joseph Brooke Ltd quarrying company, operating around 12 quarries in the Hove Edge, Hipperholme and Lightcliffe areas as well as others further afield. This spawned a number of other businesses, including the 'Nonslip' Stone Company. The latter merged with Joseph Brooke & Sons in December 1900 to become Brooke's Limited (Malcolm Bull's Calderdale Companion). In July 1903, Messrs Brooke's Limited of Hipperholme was visited by members of the Annual Congress of the Sanitary Institute. Nearly 100 members inspected the open quarries at Tuck Royd and Yew Tree, and the stone mine at Harley Head, and saw machine sawing and hand polishing in the Silex Stone Works. They also viewed the process by which Silex stone chippings were mixed with sand and formed into new slabs using hydraulic pressure (Parker 1904, 407-408). It is assumed that the brickworks referred to above which the colliery supplied in 1906 formed part of Brooke's Limited. The "Nonslip Stone Works" is clearly marked on both the 1908 edition of the Ordnance Survey 6" to 1 mile map and the 1907 Ordnance Survey 25" to 1 mile maps as a large rectangular building to the south of Hipperholme. It was served by a pair of railway sidings to the north, linked to the main railway line south of Hipperholme, together with numerous mineral railways linking it to local quarries, including those at Harley Head to the south-east. The "Silex Wks" is shown to the immediate east of the Nonslip building as a collection of smaller structures, again served by several mineral railway lines.

2.9 At around the same date, the 1907 Ordnance Survey 25" to 1 mile map marks the colliery as "Walterclough Pit (Coal)" for the first time, although there had been few large-scale changes since 1893 (see figure 4, bottom). The most marked is the depiction of the structure to the south-east. Rather than being disused or unroofed, it appears as a larger north-west/south-east aligned rectangular building, larger than in 1893, which had encroached onto the edge of the spoil mound. A detached chimney is marked to the south adjacent to a field boundary, while the reservoir/pond shown in 1893 is still present as are the two shafts. It is assumed that the large building housed the winding engine and associated boiler house, with water being provided by the reservoir. There are still several buildings shown on the site of the former woollen mill, although the complex is no longer named.

2.10 The colliery evidently underwent very substantial changes between 1907 and 1922, presumably as a result of investments made by Brooke's Limited. Given the comments on the early photograph about the earlier ropeway referred to above, it seems likely that these changes were made just before or during the First World

War. The 1922 Ordnance Survey 25" to 1 mile map names the colliery as "Walterclough Pit (Coal & Clay)" (see figure 5, top). The large building shown in 1907 had been extended to the south-west, essentially doubling in size, so that it was now continuous with the formerly detached chimney. The large pond/reservoir shown to the south had been infilled, but another similar rectangular feature had been constructed further south-west again, set on the opposite orientation within a curving section of field boundary. The large building that had been extended since 1907 had a retaining wall on its north-west side, and another building at its north-west corner. The two shafts marked in 1907 are depicted as square features in the same position, but have had substantial structures built between them and to their immediate north-west. The distribution of spoil around the colliery had also changed since 1907; there are spoil heaps to the north-west and west, and a lobe-shaped tip to the north-east had a third, circular, shaft marked at its north end. An aerial ropeway (marked as an 'aerial cable') ran north-east from the structure between the pair of square shafts and up the north slope of the valley, crossing over Wood Bottom Lane (now Sutcliffe Wood Lane) and running to Hove Edge. It terminated at a second structure immediately north-west of Tuck Royds Quarry, where the coal/fireclay/stone was perhaps tipped into storage bunkers; it is assumed that the motive power source for the ropeway was also located here, rather than at the colliery, as it was the raising of material up the slope which required effort. From the ropeway terminus, a mineral railway siding gave access to a railway which curved around Harley Head and then ran north-westwards, continuing into the Brooke's Limited complex. This too had been substantially expanded since 1907, with a large "Glazed Brick Wks" laid out to the south, although the "Silex Wks" to the east appeared unchanged.

2.11 The pit is not recorded in any pre-1901 census data, but on the 1901 census it is listed as "Walter Clough Pit", with Walter Hannam and his family (comprising his wife, two sons and two daughters) living in one house there (TNA RG 13/4118, p182). He came from Thackley (near Bradford), while his wife Isabella was from Germany - he is described as being a "Learner on Farm", presumably an apprentice, although this is crossed out and "Ag Horse" added. In 1911, the census data records two houses at "Pier Head", which was thought to lie at the pit (TNA RG 14/26379, 16 & 17). One house was occupied by Sam Booth (aged 56), his wife, two sons, one daughter, one grandson and one granddaughter, and the other by William Wallis (aged 39), his wife, daughter and son, and one lodger, Robert Jones (aged 34). Sam Booth was described as a "Watchman", William Willis was a "Fireclay miner" and Robert Jones was a "Coal miner". None of the surviving mine buildings show any evidence for domestic accommodation (see Chapter 3 below), and none is shown on the general photograph (see figure 6, top). However, perhaps this was provided by converting some of the former mill accommodation or other buildings adjacent to the pit, possibly the two-cell structure shown in 1907 (see figure 4, bottom).

2.12 The general appearance of the colliery complex as shown on the 1922 25" map has been captured by two near contemporary photographs, probably dating to some time between c.1915 and c.1925. The first (Helme 2005) is a view taken from the higher ground to the south-west, looking north-east (see figure 6, top). It shows two areas of spoil in the foreground, one contained by a rubble revetment wall. In the centre, two sets of pit-head gear can be seen, over the pair of square shafts marked in 1922. Both are of similar form, but the cross-bracing used is different to that shown on the late 19th century photograph. There is a small building with a pitched corrugated sheeting roof adjacent to the eastern shaft, not as extensive as the structure between the shafts shown on the 1922 map, and to the north, the pitched slated roof of a north-east/south-west aligned building can be

seen; this may have been of two storeys, as the 1922 map indicates that it lay below the level of the stone revetment walls containing the shafts. The winding house for the western shaft is clearly visible, and its appearance on the photograph is described in relation to the surviving building in Chapter 3 below. Behind the winding house, the roof line of the large building expanded between 1907 and 1922 can be seen. It is clear from the surviving remains in the field that this building was set within a sunken area, c.2.50m lower than the winding house; the roof lines shown are therefore likely to represent buildings of at least two storeys. The northern part of the large building is the higher, and has a pitched slated roof with finials similar to those on the winding house. The southern part is much lower, and has a tall brick chimney adjacent to it. In the middle area of the photograph, the third, circular, shaft marked in 1922 can just be made out, and appears to have a light railway for tubs leading from it. In the background, the aerial ropeway can be seen very faintly, including a large stone support wall on the south side of Wood Bottom Lane and the terminus adjacent to Tuck Royds Quarry.

2.13 The second photograph (Malcom Bull's Calderdale Companion) offers a contrasting perspective, as it was taken from the immediate north-east of the complex, looking south-west (see figure 6, bottom). A raised wooden walkway in the foreground, supported on brick piers, crosses a sunken area and has a group of colliery workers standing on it; wires or ropes from the aerial ropeway can be seen passing in front of the walkway. To the left of the walkway, the photograph confirms that the north-west/south-east aligned building shown here on the first photograph was indeed of two storeys. Behind this, the gable of the higher, northern part of the large building is just visible, with the chimney behind this. The cables from the winding pulleys of the pit-head gear in the foreground appear to be running towards the building. The pit-head gear in the background and winding house noted on the first photograph are also visible.

2.14 It is suggested that Walterclough Pit produced coal until 1930 (Malcolm Bull's Calderdale Companion), after which it was presumably turned wholly over to fireclay. However, it is still marked as "Walterclough Pit (Coal & Clay)" on the 1933 Ordnance Survey 25" to 1 mile map (see figure 5, bottom) and the 1938 6" to 1 mile map. The complex had undergone only minor changes since 1922, with smaller additional structures built to the west and south-west. A circular structure, possibly a tank, had been added to the north-east corner of the large building. All three shafts shown in 1922 are still marked, while the area of spoil to the north-east had expanded over the site of the former Walter Clough mill. A large building had been erected adjacent to the Red Beck since 1922, but it is not known if this was associated with the colliery. The aerial ropeway was as depicted in 1922, but the Brooke's Limited works had again expanded substantially between 1922 and 1933.

2.15 The colliery is similarly depicted on the 1948 provisional edition of the Ordnance Survey 6" to 1 mile map. The only difference is that a small L-shaped building is depicted off the north-east corner of the reservoir, which probably represents part of the southern group of structures recorded by the EDAS survey. Walterclough Pit remained in private ownership right up until its closure on the 18th February 1969, when Brooke's Limited itself closed. The shaft/shafts were filled in and capped (Malcolm Bull's Calderdale Companion), and extensive demolition must have been undertaken, as the existing buildings form only a small proportion of those shown on historic maps. The land was bought by the Gibson family in 1971.

3 ARCHITECTURAL DESCRIPTIONS

Introduction

3.1 The buildings recorded at the Walterclough Pit are described below in a logical sequence. The plan form, structure and architectural detailing of each building is described first, followed by the external elevations and a circulation description of the interior, from the lowest to the uppermost floor level. Reference should also be made to the floor plans and sections. As previously noted, Appendix 1 comprises the photographic record, namely a catalogue of all the photographs taken, figures which depict the various photographic location points, and copies of the black and white photographs. These photographs are referred to in the following description as plates.

3.2 The recorded buildings essentially fall into two groups, a northern group which includes the large shed (the winding house) and the fan house, and a southern group formed by the mine offices, showers and attached structures. To assist with the description of the buildings and other features identified within the site, descriptive north is considered to lie skewed to the north-east when compared to true north (see figure 7).

3.3 Unless otherwise noted, the terms used to describe roof structures are taken from Alcock *et al* (1996) and Campbell (2000). Where possible, specific architectural terms used in the text are as defined by Curl (1977). Finally, in the following text, 'modern' is used to denote features or phasing dating to after c.1945.

Setting and Surroundings

3.4 Although no detailed record of the setting of the recorded buildings was required as part of the recording works, an understanding of their context is a vital part of their interpretation, and so a brief description of the surroundings is given.

3.5 The northern group of buildings includes the winding house and the large fan house (see plate 1), while the southern group is formed by the mine offices, showers and attached structures (see plate 2). Both groups are located on relatively level ground (see plate 3); map and photographic evidence demonstrates that the shafts were originally placed within a raised mound of spoil, partly revetted with tall drystone walls. Spoil from the mine was tipped principally to the north-east and north-west; the spoil heap to the north-east increased in size substantially between 1922 and 1933, extending as far as the Red Beck (see figure 5). The extent of the spoil surviving at the time of the EDAS survey was approximately the same as that shown in 1933-48. It was not possible to find any trace of the circular shaft shown on the Ordnance Survey maps here in 1922 and 1933, but the area was quite overgrown and it is possible that the shaft was infilled, capped and buried.

3.6 A drystone revetment wall runs north from the north-east corner of the winding house (Building N2) (see plate 4). This wall stands up to 2.50m in height and was clearly either built or modified in several different phases; it is possible that sections remain from those shown on the 1893 25" map and the late 19th century photograph (see figure 3, bottom and figure 4, top). Commencing at the winding shed, the lower part of the wall is built of large roughly squared and coursed stone, while the upper part has the same 'snecked' appearance as noted to the winding house itself (see Building N2 below). There is then a break in the revetment wall, probably once housing a flight of steps leading up to the level ground above where

the buildings are located. Beyond the break, the revetment is slightly lower, and is built of roughly squared stone, much of which is rather thinly coursed (see plate 5). The preceding sections of the revetment were all present by 1922 on the same line. There is then a straight joint, and the wall face steps back slightly, before curving around more to the north-west to run west. This section becomes lower as it runs west, and in a progressively worse condition, although parts might remain from the revetment shown around the northern side of the spoil mound in 1893.

3.7 Towards the west end of the wall, there is a relatively large flat-topped opening resembling a substantial culvert at the top of the revetment, with ruined stone and machine-made brick structures at its base. A short distance to the north, there is a large brick base. This base is rectangular in plan, measuring 2.60m north-south by 1.90m east-west, and stands 2.40m in height; it is built of machine-made red bricks, laid largely in stretcher bond and set with a sandy lime mortar. A narrow, low, passage runs the full length of the structure from south to north, and has tubular metal bars projecting from the south end. A much smaller chamfered concrete base stands to the immediate west. Although a small structure is shown in this approximate position in 1893 (see figure 3, bottom), the constructional materials used in the base indicate that it is not of late 19th century date. It could have formerly been located inside the two storey building depicted here in 1922 and visible on the contemporary photographs, or it perhaps post-dates the demolition of this building. It is too far to the east to have been associated with the operation of the aerial ropeway, and indeed the only surviving remnant of this appears to be the very large stone pier set on the south side of Wood Bottom Lane, some distance to the north of the colliery site.

3.8 To the east of the revetment wall described above, the ground level is set between 2m to 3m lower than that to the west where the existing buildings stand. As has already been noted in Chapter 2, a roofless or disused structure is shown in this general area in 1893, which was replaced by a larger building in the same position by 1907 (see figures 3 and 4). This was doubled in size by 1922 (see figure 5, top), and must have been partly given over to the boilers for the winding engine in the winding house; a tall brick chimney stood to the immediate east. All of these buildings have been demolished, presumably after the pit closed in 1969, leaving only a brick and rubble strewn sunken area.

3.9 However, there is a single surviving structure here, indeed the most substantial ruined structure apart from those recorded as part of the survey work. It is formed by a rectangular base of mixed stone/concrete and brick, measuring c.4m east-west by 3m north-south and standing almost 3m in height (see plate 6). The lower, rectangular, part is of coursed squared stone, but the upper part, which is essentially U-shaped with a thin brick wall across the ‘open’ west end, comprises concrete and machine-made bricks. A number of large threaded bolts project from the upper surface of the structure. Again, it is too far to the east to have been associated with the aerial ropeway and was presumably once located within a building.

3.10 Approximately 6.50m to the west of the winding house in the northern group of buildings, a capped shaft is visible, the westernmost of the pair of shafts marked on the maps between 1893 and 1933. The main part of the capping is formed by a rectangular concrete base, measuring 3.50m north-south by 2.70m east-west. A steel stanchion, cut off at ground level, appears to have been present at each corner. On the immediate north side of the concrete base, there is a metal-framed base set into the ground, also infilled with concrete, measuring 1.50m north-south by 2.30m east-west; a fifth cut-off stanchion is located 0.80m to the north of this.

Approximately 2.20m to the south of the concrete base, there is a smaller sub-square area of concrete, measuring 2.30m across and set on a slightly different alignment. No trace of the easternmost of the pair of shafts was discovered during the survey work.

3.11 To the south-east of the southern group of buildings are the remains of a reservoir. This reservoir, which is first shown on maps in 1922 (see figure 5, top), is rectangular in plan and aligned north-west/south-east, measuring c.16m long by 6m wide. The sides, which survive up to 1m in height, are built of coursed squared rubble, but were overgrown at the time of the survey. A small open-ended brick structure is set to the south of the reservoir, further up the south slope of the valley, but it is not known if this was associated with the colliery.

The Northern Group of Buildings (NGR SE 12567 24170)

3.12 The various structures in the northern group of buildings have each been allocated a unique letter identifier prefixed with the letter 'N' (e.g. 'N1', 'N2' etc). As previously noted, the buildings are set on a shallow north-west/south-east alignment but, for ease of description, they are considered to be aligned east-west (see figure 7).

Building N1 (see figure 8)

Historical background

3.13 Comparison of historic maps with modern topographical surveys suggests that the westernmost cell of this building was built between 1907 and 1922, most probably just before or during the First World War; many loose frogged bricks in the vicinity bear the stamp 'BROOKES'. In 1922, it was attached to the larger structure running between the pair of shafts, which was also aligned on the aerial ropeway. Its west gable is just visible on one of the near contemporary photographs, behind the pit-head frame of the western shaft (see figure 6). At this date, it was not attached to a larger structure as indicated on historic maps, and may have had a corrugated sheet roof rather than a slated one, with stone coping to the gable and a single large opening below, apparently unglazed. The building was unroofed or disused in 1933.

Plan form, structure and materials

3.14 Building E1 stands on the north side of the eastern grouping and is a free-standing structure (see plate 7). It is formed by three parts or cells of approximately equal size; the east cell butts the central cell, which in turn butts the west cell, supporting the map evidence that the west cell is the earliest part. The central and east cells were added after 1933. The building is rectangular in plan, with maximum external dimensions of 7.75m east-west by 3.10m north-south; the east cell is slightly narrower at 2.90m. It is of a single storey throughout, although the east cell is significantly lower than the other two. The west and central cells once had a continuous pitched stone slated roof with stone ridging and flat stone gable coping, while the east cell has a stone slated single pitch roof. Internally, the building has a maximum total height of c.3m from ground floor level to the underside of the roof ridge.

3.15 The building has load-bearing external walls (average width 0.31m). The external walls of the west and central cells are built of coursed squared sandstone set with a cement mortar; the west cell uses the same 'snecked' style as the winding house

(Building N2; see below), while the masonry of the central cell is more regularly coursed. The internal walls of both are built of machine-made red brick (average dimensions 230mm by 110m by 75mm) laid largely in stretcher bond and set with a sandy cement mortar. Some fallen frogged bricks in this area bear the stamp 'BROOKES'. The east cell is constructed entirely of the same machine-made bricks. Internally, the west cell preserves some evidence for a boarded ceiling (see circulation below). The west cell is floored with well cut sandstone flagstones (see plate 8), as is the central cell. The east cell is also floored with sandstone flagstones but they are of a different type to the others, being regularly sized.

External elevations

3.16 The west gable of the west cell faces towards the former pit head, located some 6.50m to the west and now sealed. A low rectangular wall, capped with a concrete sill, projects from the base of the gable; this gable was apparently once attached to a larger structure. The sill once supported a wooden frame, either glazed or shuttered, which would have been set to the front of a large opening in the gable with a stone lintel; photographic evidence suggests that this is all later infill, and that the opening was originally not filled in. Above the lintel, the base of a large downward projecting light fitting survives. At either end of the gable, the original pitched profile of the roof has been altered by heightening the corners in machine-made brick (see plate 9).

3.17 The south elevation of the west cell is plain, although it once had a line of five moulded concrete corbels at eaves level, of which only two survive; the same corbels can be seen to the north and south elevations of the winding house (Building N2). The west elevations of the central and east cells are both blank. The low east elevation of the east cell has a long window opening with a window lintel. This opening is fitted with a four-light fixed casement frame, one light of which has been boarded up. The north elevation of the east cell contains a doorway and a small opening, fitted with a wooden louvered vent, and there is a similar arrangement to the central cell. The north elevation of the west cell only has a doorway; both this and the doorway to the central cell have stone lintels and jambs.

Circulation

3.18 At the time of the survey, access to the interior of all three cells of the building was through the doorways in the north elevation.

3.19 The doorway to the west cell retains a wooden door frame and a plank and batten door, hung on hinges set into the east jamb of the frame (see plate 10). The door has its original latch but has lost the early lock block above; at the base, a sliding cover can be moved horizontally across a small opening. The doorway has a timber lintel internally, and there is a circular metal electric fitting affixed to the west end, with the remains of a cable attached. There appears to be a low blocked opening above the doorway, and to the west, a horizontal timber on the wall has two projecting nails, each with an earlier circular metal hook fitting adjacent. The north wall retains traces of whitewash, as do all the other internal walls (see plate 11). The west wall is largely taken up by the opening to the gable end, which has a wooden lintel internally and the remains of a wooden frame. Below the opening, there is a small low recess, centrally placed, at the base of the wall, with a metal plate or fitting set into the narrow strip of concrete to the interior (see plate 12). The concrete is butted to the east by a low brick plinth, a single course in height. The most significant survival is to the north of the main opening in the west wall,

where a re-used piece of timber is nailed to the brickwork. The timber was originally set horizontally, and retains enamelled metal discs bearing the numbers '41' to '60', each once with a small hook below it (see plates 13 and 14). This would have been used to hang mining tallies on, checking men in and out as they entered and left the mine workings. The south wall of the west cell is blank, while the east wall has a horizontal and a vertical timber affixed to the brickwork at mid level. Over the west end of the cell, the surviving roof structure indicates that the ceiling was boarded internally and flattened at the apex.

3.20 The doorway to the north wall of the central cell retains a plank and batten door of similar form to that described above for the west cell. A small opening to the east of the doorway has a stone lintel, sill and jambs and is fitted with a modern louvered vent. However, to the rear, there is the wooden frame of a sliding horizontal cover and below this, at the north-east corner of the cell, a stone shelf projects from the wall (see plate 15). A similar shelf was once placed at the south-east corner of the cell but has now been largely broken off. The west wall retains some whitewash and, in contrast to the brickwork of the other three walls, is of snecked stone, providing further evidence that the west cell was once a small, free-standing structure (see plate 16). A horizontal timber to the wall once carried enamelled metal discs and hooks like those surviving to the west cell, but unfortunately all of the discs have been removed. There is a horizontal timber set at the same height on the south wall, and this too once carried the same discs. The east wall probably once had a low window opening running across it, but the sill was cut back to lower it, and a hay manger inserted in its place (see plate 17).

3.21 The doorway to the north wall of the east cell is fitted with a plank and batten stable-type door, while the small opening to the east has a modern louvered vent. A modern water trough is set at the north-east corner of the floor. Over the window in the east wall, there is a fourth horizontal timber bearing enamelled metal discs, with the numbers 34 to 40; it probably originally bore the numbers 20 to 40 (see plate 18). The south wall is whitewashed, and has two wooden shelves, one above the other, at the east end (see plate 19). The shelves have or had metal strips fixed to their front edges, incorporating regularly spaced loops. The loops are vertically aligned, and so fittings could have been threaded between them.

Building N2: the Winding House (see figures 8 and 9)

Historical background

3.22 The comparison of historic maps with modern topographical surveys suggests that the winding house was built between 1907 and 1922, most probably just before or during the First World War. In 1922, it stood on the then southern side of the colliery complex (see figure 5, top), and housed the steam winding engine driving the winding pulleys mounted on the westernmost of the two pit-head gears. Near contemporary photographs show that, at least when viewed from the south-west, the winding house was a tall single storey, stone built, structure with a pitched slated roof having gable and ridge coping, and ball finials to either end of the ridge (see figure 6, top). There was an opening in the south wall, and a large window opening in the west gable. This window was fitted with a 36-pane (four rows of eight) wooden frame; the upper row was separated from the lower three by a deeper timber. In the lower part, the position of four panes appears to be occupied by a plank and batten door, through which one of the cables from the winding pulleys passed. The second cable passed through a small opening positioned above the lintel of the window. To the north of the window, there was a doorway.

The winding house is shown in exactly the same manner in 1933 as it is in 1922 (see figure 5, bottom).

Plan form, structure and materials

3.23 The winding house stands in the centre of the northern group of buildings and, discounting the modern farm shed to the north-west (outside the survey area), is the largest surviving building within the complex (see plate 20). The east gable is partially butted by the small fan house (Building N3) and by some of the low level retaining walls to the immediate east. The building is sub-square in plan, with maximum external dimensions of 8.90m east-west by 8.00m north-south. It is of a tall single storey, with a pitched stone slated roof with ceramic ridging and flat stone gable coping; the centre of the ridge is pierced by the remnants of a square boarded wooden vent, which is not shown on the historic photographs of the building. Internally, the building has a maximum total height of 5.65m from ground floor level to the underside of the roof ridge.

3.24 The building has load-bearing external walls (average width 0.35m). All the external walls are built of coursed squared sandstone set with a lime mortar; the courses are interrupted at irregular intervals by squared pieces of sandstone, a style described by Brunskill (1970, 38-39) as 'snecked', and there are prominent corner quoins. Internally, particularly around openings, much use is made of red machine-made bricks (average dimensions 230mm by 105mm by 80mm) set with a dark cement mortar. Internally, the winding house is open to the roof ridge and is divided into two bays of equal length by a single north-south aligned softwood roof truss. The building is floored throughout with concrete, although this has clearly been laid in several different phases; some is recent, such as the patch initialled 'S D M G K G 1/7/79' in the north-east corner. There is however an older strip to the south of centre. The strip is over 5.00m in length and has an average width of 0.70m; it is aligned east-west, parallel to the south wall of the building. A series of sawn off bolts are spaced regularly across the eastern half of the concrete strip, but the western half appears to be largely blank.

3.25 Slightly to the north of centre of the west bay, there is an east-west aligned pit, 2.95m long, 0.82m wide and 1.28m deep (see plate 21). The pit has most recently been used for vehicle inspection, but may preserve part of an earlier arrangement as, while the south side comprises modern blockwork, the north, east and west sides are of machine-made brick. The east and west sides are relatively plain, but the north side preserves a number of features (see plate 22). To the upper part, there is an approximately central area of concrete blocking, 1.00m wide by 0.70m deep, with a 0.70m square similar feature to the west and substantial grease staining to the east. Below the concrete blockings, the brickwork steps out slightly, and this step has been used as a base for wooden boards at the east end of the pit. There is a brickwork step at a similar height at the west end of the pit. Below the step, a pair of I-section steel beams have been cut off flush to the brickwork; between the beams, there is some eroded masonry. The base of the pit appeared to be a mixture of infilled material. The position and juxtaposition of the pit and the older concrete strip suggest that they may relate to a horizontal steam winding engine; this is discussed further in Chapter 4 below.

External elevations

3.26 The west gable faces west towards the former pit head, located some 6.50m away and now sealed (see plate 23). The large central doorway opening is a later insertion, replacing the window shown on the historic photograph; crudely hacked

away stonework projects inwards from the base of either jamb. The doorway has monolithic concrete jambs and a lintel formed from a substantial I-section steel joist; the jambs are original, but on the historic photograph the lintel may be wooden rather than steel. The doorway retains a pair of softwood plank and batten doors, hung on long strap hinges; the north leaf is approximately twice the width of the south leaf, and both were once painted mid-green (see plate 24). Rather than being secured to the wooden frame of the door, the hinges are actually supported on pintles welded to tubular steel uprights which stand slightly to the front of the doorway opening itself. To the north of the main doorway opening, there is the original, smaller, doorway (now blocked), again with a concrete south jamb and also a concrete lintel. Immediately above the southern end of the lintel of the main doorway opening, a metal bracket and eye secure the remnants of a steel cable that once ran west. To the north and above the door, there is a window opening with a concrete lintel, preserving part of a wooden frame; this is shown with a winding cable passing through it on the historic photograph (see figure 6, top). At a higher level, above the northern end of the lintel of the main doorway opening, a cable leaves the interior of the building and rises to a vertical metal mounting projecting from the wall. The footings of a brick wall run west for 1.10m from the south side of the central doorway.

3.27 The south elevation of the building is largely blank, with the exception of a blocked doorway opening placed slightly to the west of centre; again, this is visible on the historic photograph (see plate 25). The opening has been blocked in two phases (lower and then upper) and, like the doorway in the west gable, has a steel joist for a lintel and a monolithic concrete west jamb. At the very east end of the elevation, there is a small, square blocked opening at a low level. A line of twelve moulded cast concrete corbels, spaced at equal centres, run across the elevation just below eaves level. Similar corbels are also present to the north elevation, where there are two tall blocked window openings, with a doorway at the east end (see plate 26). The doorway has a monolithic cast concrete lintel and jambs, and retains a plank and batten door. The windows have cast concrete lintels, jambs and sills, with a concrete block running between them.

3.28 The east gable of the building is some 3m taller than the west gable, due to the sharp drop in ground level to the immediate east of the winding house (see plate 27); the base of the east gable is set c.3m below the internal floor level of the building. The gable is butted by a number of low level walls to the east. At the south end of the elevation, a concrete blockwork wall is set at a right angle between the gable and a parallel stone rubble wall 1.10m to the east. The blockwork wall butts both, blocking what may once have been a narrow passage running along the building's east gable. The east side of this passage returns to the east at its north end, as does a staggered blockwork wall butting the north end of the gable, together defining a narrow entrance from the east. It is not clear if the passage was ever covered, although a semi-circular spread of sooty material adhering to the lower part of the gable suggests that it was not. The main feature of the gable is a centrally placed blocked opening with concrete jambs, lintel and sill; the base of the sill is set just above the internal floor level of the winding house. The opening appears to have been blocked in two phases, with an upper concrete sill set approximately one third up its height. To the north and below the main opening, there are a number of smaller recesses or sockets, most less than 0.20m square. However, towards the north end of the gable, a 0.20m diameter metal pipe emerges from a larger low level opening, while below the main opening, there is a similar feature which has now been blocked (see plate 28).

Circulation

3.29 At the time of the survey, access to the interior of the winding house was through the main doorway in the west gable. As stated above, the majority of the interior is floored with concrete, mostly modern but with several older features visible.

3.30 Commencing with the west wall, the upper area above the main doorway opening is whitewashed. Internally, both jambs of the large doorway can be seen to be built of machine-made brick. To the south of the doorway, a small wrought-iron bracket driven into the wall has a length of cable hanging from it. Above the very south end of the main doorway's lintel, a former small opening with a stone lintel has been blocked. The wooden frame of the larger opening over the lintel (that housing one of the winding cables on the historic photograph) can be seen to have additional timbers lining both the upper and lower corners. To the north of the main doorway opening, the smaller doorway has a concrete lintel internally, retaining the south jamb of a softwood frame; both doorway jambs are of machine-made brick (see plate 29).

3.31 The brickwork carries around to the west end of the north wall, which again retains patches of whitewash, particularly on the central part. There are three openings in the north wall, from west to east, a window, a window and a doorway; both windows are blocked. Both jambs of the blocked opening at the west end of the wall are of machine-made brick, and it has an internal concrete lintel. The opening does retain part of a wooden frame but this is largely obscured by a sheet of corrugated iron that has been nailed to it. To the east, the central opening of the three has brick jambs and a wooden lintel; the wooden lintel has the remains of a scribed softwood moulding nailed to the inner face (see plate 30). It retains parts of a wooden frame and has been blocked using a variety of material, changing from concrete blockwork to stone to brick as it rises up the former opening; the changing material may indicate successive blockings, gradually reducing the opening in size. The doorway at the east end of the north wall has brick jambs and a wooden lintel. It retains a softwood door frame and a softwood plank and batten door. The door is hung on T-shaped hinges mounted on the east jamb of the frame. The latch survives, as does the wooden lock block with decorative pierced metal mountings.

3.32 The majority of the east wall is whitewashed (see plate 31). Set slightly to the north of centre, there is the blocked opening, visible externally. The base of the opening is set 0.35m above the internal concrete floor level, and it has brickwork jambs, with a steel joist lintel; there is a prominent grease or oil stain on the lower brickwork to the south jamb. The base steps inwards to meet the concrete sill visible externally, and above sill level, retains the remains of the jambs and lintel of a wooden frame, in two parts. The inner frame is moulded and was apparently unglazed, and is fixed to a slightly wider outer frame with small metal brackets. To the north of the main opening, a small U-shaped wooden base, set 1.50m above floor level, is supported on metal brackets; the upper surface of the wooden base has a shallow U-shaped recess set into it. There is a second projecting wooden fitting to the north, set at a slightly lower level, comprising a holder for two cables. Above this, there are the remains of two fittings relating to a former three phase and neutral 'ac' electricity supply (see plate 32). The lower fitting is probably a fuse box. It is mounted vertically on a metal frame attached to the wall but occupies only one third of the frame's length. The box has an opening cover bearing the cast mark "Made in England U Patent" to the interior. Inside, the box was once divided into four levels, and one of these retains part of a ceramic fitting. At the base of the interior, there are a number of cloth-bound cables. A metal pipe rises

from the lower fitting to the upper fitting, another metal box that may have once formed the isolator. This too is vertically mounted with an opening cover, and preserves the remains of two ceramic cable clamps.

3.33 To the south of the main opening in the east wall, there is a short wooden coat rack, with four wooden pegs. Finally, a rather curious feature of the east wall is the four stones in the stone walling which have their faces recessed by 0.05m from the main wall face (see plate 33). They do not appear to have ever projected from the wall face, their current appearance, for example, being caused by the projections breaking off, nor is there an obvious pattern to their distribution. Three are set at 2.75m above the internal floor level, one offset from the centre of the main blocked opening with the other two flanking it, and the fourth at a lower level to the immediate south of the opening. Above the opening, but apparently unconnected to the recessed stones, there are a pair of bolts projecting from the wall face. There may a horizontal line on the whitewash at the same height as these bolts.

3.34 The majority of the south wall is also whitewashed. The main feature here is the blocked doorway opening, set slightly to the west of centre (see plate 34). Internally, both jambs are of stone, suggesting that it is an original feature, although a later concrete jamb has been inserted to the west side. The lower part of the doorway was blocked with brickwork, and a wooden window frame inserted above to create a window, before the whole height of the opening was blocked externally using stone. The area of walling above the lintel has also been rebuilt in brick, including around the south end of the truss, indicating that this too may have been reset at some point. To the east of the blocked doorway, a cast-iron bracket once secured a vertical pipe, with a clamp placed across the front. To the east of this, there is a slightly recessed stone at a low level, similar to those described above to the east wall. To the west of the blocked doorway, there is a low level area of brick blocking and above this, the shadow of a vertical fitting that was once mounted on the wall. A piece of angle iron projects from the wall adjacent to the shadow, and there are also lead cable clamps here, each secured by a single screw, that may be associated.

3.35 As has already been noted, the interior of the winding house is crossed by a single, centrally placed, north-south aligned truss. The truss is of kingpost form, and of sawn bolted softwood construction throughout (see plate 35). There are raking struts to the principal rafters, a pair of upright purlins to each principal, and a plank ridge piece. At either end of the truss, the face of the wall steps outwards above the top of the tie-beam and is carried on a separate timber, which also appears to support the feet of the common rafters after they pass into the wall. Midway between the king post and the north wall, the top of the tie-beam has two shallow parallel grooves cut into it, while two metal eyes are fixed to the soffit towards the south end. At its northern end, the west face of the tie-beam retains a series of incised marks. These appear to comprise ‘F2”9 X1 2”’ and their style suggests that they relate to the importation of Baltic pine (Patrick Greene 1995, 119-123). On the same face of the truss, beading has been nailed to the base of the principals above the level of the upper purlins, and this appears to be associated with the remains of the wooden vent that can be seen projecting from the roof ridge. The purlins carry a number of other fittings. To the north roof slope, the lower purlin has a metal pipe fixed to it, probably formerly housing electrical cabling, and there is a similar pipe here fixed to the timber carrying the outward step at the top of the wall. To the south roof slope, the upper purlin retains two bell-profile ceramic light fittings mounted on wooden discs. The lower purlin carries another metal cable pipe as far as a circular metal junction. The lower purlin also once had brackets fixed to the inner face at equal distances from the tie-beam, but that to the west

has subsequently been removed. To the west of the tie-beam, the soffit of the same purlin has a small diameter pulley suspended from a hook (see plate 36); the pulley is aligned on the small blocked opening with a stone lintel visible above the south end of the lintel of the large doorway in the west wall, suggesting that a cable or line passed over the pulley and then outwards to the exterior of the winding house.

3.36 Approximately 0.52m to the west of the east wall of the winding house, two wrought-iron brackets are suspended from inner face of each upper purlin (see plate 37). They appear to be bolted to the inner faces of the purlins and angle inwards slightly as they drop. They both drop for 1.70m beneath the top of the purlins and are U-shaped at their lower ends; at 0.25m in width, the lower end of the north bracket is wider than that of the south bracket. The underside of the bracket bases are placed at 3.05m above the internal floor level, only 0.05m lower than the top of the truss's tie-beam. It is therefore highly likely that the brackets supported horizontal timbers which ran west and were secured to the top of the tie-beam - these timbers ran almost the full length of the building but did not continue east to be set into the east wall of the winding house.

Building N3: the Small Fan House (see figure 8)

Historical background

3.37 The small fan house does not appear on any of the maps consulted for the research undertaken for this survey, and so must therefore have been built after 1948.

Plan form, structure and materials

3.38 The small fan house stands in the centre of the northern group of buildings, butting both the south-east corner of the winding house (Building N2) and the north wall of the large fan house (Building N4) (see plate 38). It is rectangular in plan, with maximum external dimensions of 4.10m east-west by 2.75m north-south, and is placed on a concrete pad which projects 0.30m beyond the external walls. The building is of a single storey, and had a single-pitch roof, sloping downwards from south to north, with an unknown roof covering. Internally, the building has a maximum total height of c.2m from ground floor level to the underside of the roof ridge.

3.39 The small fan house has load-bearing external walls (average width 0.30m). All the external walls are built of machine-made red brick (average dimensions 230mm by 110m by 75mm) laid in a variation of English Garden Wall bond (six stretcher courses to each header course) and set with a sandy cement mortar. Internally, the building appears to have been open to the roof, and was floored throughout with concrete. A small channel left the west side of the concrete engine bed (see below) and ran to a small drain at the floor's north-west corner.

External elevations

3.40 The external elevations of the building are, as might expected, very plain and functional. There are doorways in the east and west walls, but both doors are now missing, retaining only parts of the wooden door frame (see plate 39). The west doorway has a steel joist lintel (see plate 40), and the east doorway a concrete one. A window opening in the centre of the north wall has a concrete lintel but the wooden frame has been removed.

Circulation

3.41 At the time of the survey, access to the interior was through the doorways in the east and west walls. The main surviving internal feature of interest is the remains of the fan. This occupies the southern half of sub-square concrete base, raised 0.20m above the level of the concrete floor. The engine or motor driving the fan was mounted on the north side of the base. All that remains of this is a sub-square arrangement of 20mm diameter threaded bolts, projecting 6mm from the surface of the concrete base, together with two closely grouped lines of four 10mm diameter threaded bolts; the latter project 3mm from the surface of the concrete, and retain hexagonal nuts and washers (see plate 41). The fan is set immediately adjacent to, but not touching, the south internal wall; it is separated from it by a gap of 0.07m. In the south wall, in line with the fan, there is sub-square opening which passes through into the fan drift passage, and which formed the fan's inlet (see Building N4).

3.42 What is left of the fan is principally a fragment of the riveted sheet metal case (see plates 42 and 43). The base is rectangular, measuring 1.55m east-west by 0.63m north-south. In the centre of the south side, aligned on the opening in the south wall, is a 0.85m diameter metal ring. The volute of the case widens around the ring in an anti-clockwise direction when viewed from the north, indicating that the fan rotated in the same direction, discharging through a chimney (perhaps also of sheet metal construction) in the roof located somewhere near the building's west end. There are two upright angle-irons fixed to the north side of the case, with projecting lugs to the base and top, pierced by small diameter circular holes.

Building N4: the Large Fan House and Drift (see figures 8 and 10)

Historical background

3.43 The large fan house does not appear on any of the maps consulted for the research undertaken for this survey, and must therefore have been built after 1948.

Plan form, structure and materials

3.44 The large fan house and drift are located on the south side of the northern group of buildings, and the north wall is butted by the small fan house (Building N3) (see plate 44). The large fan house has an irregular plan form, but essentially comprises a rectangle measuring 7.20m north-south by 5.40m east-west, with the fan drift and associated passage extending a further c.8m to the west; the fan drift itself must have once continued as far as the mine shaft to the west of the northern group of buildings but is blocked by a collapse 1.40m beyond the entrance. The large fan house is of a single storey, with a unevenly pitched roof covered with corrugated sheeting; the south slope is by far the widest and shallowest, but the whole upper part of the building appears somewhat truncated, suggesting that it once rose higher. Internally, the building has a maximum total height of c.3m from ground floor level to the underside of the roof.

3.45 The large fan house has load-bearing external walls (average width 0.38m). All the external walls are built of coursed squared sandstone set with a lime mortar, but lacking the snecking seen in Building N2 and parts of Building N1. Prominent edge-laid quoins survive to the south-east and south-west corners only; internally, the jambs of all doorway and window openings are partly built of pinkish-red machine-made bricks (average dimensions 220mm by 110mm by 70mm). The building is floored throughout with concrete, and the softwood single pitch roof

structure over the main part is extremely simple, comprising common rafters and corrugated sheeting sloping downwards from north to south. The fan drift passage has a flat reinforced concrete roof, 0.25m thick.

External elevations

3.46 The west gable has a doorway opening with a concrete lintel, retaining a plank and batten door (see plate 45). Within the door, there is an opening leaf, ensuring access was still possible when the main door was bolted from the inside. The door falls short of the lintel of the frame, indicating that there was once a second part or light above which has been removed. The external face of the door bears the stencilled legend 'CLOSE THIS DOOR'. To the south of the doorway, there is a window opening with a concrete lintel and sill. This opening is boarded externally, but internally retains the remains of a two-light fixed casement frame. To the north of the doorway, the south wall of part of the fan drift passage has been inserted into the west gable, although the external stonework is very similar. This wall runs west and then angles to the north-west before resuming its westward course for a further 3.30m. It returns to the north slightly to the east of the fan drift entrance below ground (see below), and is covered by a sloping reinforced concrete roof throughout (see plate 46). Beyond the return, the broad arch of the vaulted roof of the fan drift slopes down towards ground level. Along the southern side, machine-made bricks have been built up against the vault for a short distance. A single course blockwork wall flanks the vault to either side, and is placed c.0.50m outside the internal walls of the drift below; the blockwork never rose any further, and may have functioned to prevent vehicles backing over the drift, at least along the southern side.

3.47 The north elevation of the large fan house is butted by the small fan house, and is completely blank (see plate 47). The east gable is dominated by a large doorway opening. This doorway has a lintel formed from a substantial I-section steel joist. It retains a pair of softwood plank and batten doors, hung on long strap hinges, both painted off-white (see plate 48). As with the west gable of Building N2, rather than being secured to the wooden frame of the door, the hinges are actually supported on pintles welded to tubular steel uprights which stand slightly to the front of the doorway opening itself. To the north of the doorway, a window opening is fitted with a modern wooden louvered vent. A stub of stone wall projects west from the north-east corner of the building, and a concrete pad projects slightly beyond this.

3.48 The south elevation has a centrally placed window opening, with a stone lintel, chamfered stone jambs and a chamfered stone still (see plate 49). The opening is partly boarded externally, but internally retains the remains of a two-light fixed casement frame.

Circulation

3.49 At the time of the survey, the principal access to the interior was through the large doorway in the east gable (see plate 50). The interior is floored entirely with concrete and preserves evidence for a number of former fixtures. Adjacent to the west end of the south wall, there is the shadow of a rectangular base, measuring 0.70m north-south by 0.40m east-west and once secured in place by two pairs of threaded bolts. Directly above the base, a U-shaped wrought-iron bracket is secured vertically to the wall; a horizontal bolt with a nut either end projects from the top and bottom of the bracket, and the lower bolt passes through a piece of timber pierced by a small diameter circular hole (see plate 51). On the north side

of the floor, the sub-rectangular impression left by an engine bed or base remains visible. The impression measures 1.60m north-south by 2.10m east-west, the northern side having a slightly sinuous plan form. A drain, largely covered with concrete tiles, leaves the west side of the impression and then angles to the south, before entering a short cross-section which presumably drains to the exterior of the building. The position of the fan base is marked by two parallel lines on the concrete, each measuring 2.30m long and set 0.95m apart (see plate 52). In the adjacent wall to the north, which separates the body of the fan house from the passage associated with the fan drift, there is the remains of a plastered circular opening, which was once c.0.80m in diameter and which formed the fan's inlet (see plate 53). To the west, in the south face of the wall, there is a slightly recessed panel, 0.95m across. This panel coincides with a break in the reinforced concrete roof of the passage, indicating the exhaust/chimney point for the fan. This demonstrates that, when viewed from the south, the fan turned in a counter-clockwise direction i.e. in the same direction as the fan in the small fan house (Building N3).

3.50 The passage associated with the fan drift has a total internal length of 10.90m before it meets the fan drift proper, and an average internal width of 1.50m; the height from the concrete floor to the underside of the concrete ceiling is 2.00m. The walls of the passage are of coursed squared stone, set with a cement mortar. Variation in the depth of the stone courses suggests that the height of the west end of the passage may have been raised in the past, but otherwise the internal walls are very well built and maintained. The pedestrian access to the passage was provided by a short angled passage leaving the north-west corner of the main body of the large fan house. At the point where the angled passage leaves the large fan house, there is a staggered joint to the west wall, suggesting that the angled passage has been inserted into the wall. Furthermore, the walls of the main passage have opposed staggered joints just to the west of where the angled passage joins, again suggesting several phases of construction. The angled passage was provided with the same form of reinforced concrete roof as the main passage, and this roof once projected into the north-west corner of the large fan house's interior. The former extent of the roof is mirrored by a joint in the concrete floor, with a small recess at the south-east corner for a vertical post. It is probable that airtight doors were once fitted here, so that the flow of air through the fan drift and into the fans was not disrupted (see plate 54).

3.51 There were once three sets of double doors within the main passage, placed at distances of 0.50m, 3.25m and 4.65m from the internal east wall. The easternmost set has been removed altogether, leaving only the recesses which formerly housed the upright posts of the frame (see plate 55). The frame and central post of the central set of doors remain *in situ*, but only the western set preserve the full form (see plate 56). These doors are of substantial plank and batten form. The frame comprises timber posts forming the jambs which are slightly recessed into the adjacent walls, and a central post; all three are tenoned into a wooden lintel. The east face of each door is formed by horizontal timbers (see plate 57), while the west face is formed by vertical timbers (see plate 58), so as to form an airtight barrier. The doors opened outwards to the west, and each leaf is hung on a pair of substantial wrought-iron strap hinges mounted on pintles to the west face. The strap hinges are each secured to the leaf by three short threaded bolts with nuts and circular washers. When closed, the doors rested flat against the west face of the frame, and were secured in place by a rotating wrought-iron bar mounted on the east face of the central post (see plate 59). If set horizontally, this bar fitted into a bracket mounted on the east face of each leaf; only the bracket to the south leaf of the surviving doors remains *in situ*, but there is no shadow left by a removed

bracket to the north leaf, although there must have been some provision for keeping it shut when required. When open, the doors were secured in place using wrought-iron eyes screwed into the east face of each leaf. It is assumed that hooks were mounted on the walls of the passage to fit into these eyes, and a metal fitting to the north wall just beyond doorway may once have carried a hook.

3.52 To the immediate west of the surviving doors, the floor of the passage begins to slope very gently downwards from east to west. In the north wall, there is a sub-square opening lined with timber, opening into the small fan house (Building N3) to the north and forming the fan's inlet. A plaster/cement fillet to the interior defines a 0.74m diameter circular opening; this is placed slightly asymmetrically to the sub-square opening, but is in exact alignment with the circular ring forming part of the surviving fan case within the small fan house (see plate 60). To the west of the sub-square opening, in the north wall of the passage, there is another small rusted metal fitting similar to that to the east suggested to have secured the north leaf of the surviving doors in place, although there is no evidence for doors here. Beyond the fitting are the aforementioned opposed staggered joints in the north and south walls, and at around this point the floor of the passage begins to slope more steeply downwards from east to west, as does the roof (see plate 61). The side walls and roof of the passage butt the fan drift itself. The drift is the same width as the passage and has a broad semi-circular vault over (see plate 62). Both the sides and vault of the drift are built of pinkish-red machine-made bricks (average dimensions 220mm by 105mm by 80mm) laid in a variation of English Garden Wall bond (four stretcher courses to each header course) and set with a cement mortar (see plate 63). The route of the drift is blocked by a collapse some 1.80m in from the entrance, but it evidently continued to slope on the same gradient as the passage for some distance towards the shaft to the west. Close to the entrance, in the north side, there is a low blocked opening, possibly a former doorway (see plate 64).

The Southern Group of Buildings (NGR SE 12543 24158)

3.53 The various structures in the southern group of buildings have each been allocated a unique letter identifier prefixed with the letter 'S' (e.g. 'S1', 'S2' etc). The buildings are set on a north-west/south-east alignment but, for ease of description, they are considered to be aligned east-west (see figure 7).

Buildings S1 to S6 (Mine offices, showers and toilets) (see figure 11)

Historical background

3.54 Only a small L-shaped building is shown here on the 1948 provisional edition of the Ordnance Survey 6" map, which is likely to represent the core building (Building S1) and probably a structure subsequently replaced by Building S2. No other buildings are shown, and so the remainder of this complex must have been built after 1948.

Plan form, structure and materials

3.55 The mine office and showers stand to the south of the northern group of buildings, and comprise a collection of conjoined structures. They are all of modern appearance, and some parts may well date to only shortly before the closure of the mine in the 1969. Other parts are more recent still, and are believed to have been added post-closure when parts of the complex were rented out as stabling (Messrs Gibson, *pers. comm.*). The group has total maximum external dimensions of

16.50m east-west by 12.70m north-south; the largest building (Building S1), forming the core of the group, is rectangular in plan, measuring 10.30m east-west by 4m north-south. This is a two storey structure, and formerly had a single pitch slated roof sloping steeply down from north to south; the building has a maximum total height of c.5.50m from ground floor level to the underside of the roof. The other parts of the group are all of a single storey, and all have flat concrete roofs.

3.56 All parts of the group have load-bearing external walls, between 0.30m and 0.50m in width. The majority of the external walls are built of coursed squared sandstone set with a cement mortar, and there are prominent corner quoins to Building S1 and to some of the other adjacent structures. One of the attached structures (Building S4) is of brick, rather than stone. A variety of constructional materials are visible internally, and these are described under the circulation description below.

External elevations

3.57 The principal elevation of the group faces north. At the east end, the north elevation of the large core building is obscured by a later, abutting, structure (Building S2) (see plate 65). This is of a single storey with a flat roof, and has two tall but unequally sized doorway openings in the north wall, and a further doorway at the south end of the east wall (see plate 66); the west wall is blank. The north elevation of the large core building (Building S1) was originally provided with a pair of window openings to the ground floor and a pair above the first floor. All the window openings were of the same form, with quoined jambs, and were fitted with similar six-light wooden casements; the outer, lower, lights open outwards. There is a doorway, leading to an entrance passage, to the west of the core building, and to the west of this, another single storey flat-roofed structure (Building S3), which butts the passage. This has a single window opening with a fixed wooden casement in the north elevation, a doorway in the west elevation, and another window in the south elevation. The south elevation of the building is butted by a small brick structure with a single-pitch corrugated roof (Building S4) (see plate 67).

3.58 The west gable of the core building (Building S1) has a window at first floor level, but the south elevation is almost completely blank, pierced only by four ceramic pipes which relate to vents visible to the interior (see below); a short stone stack rises from the top of the elevation to the west of centre. A shower block (Building S5), only accessible internally, is built against the east end of the south elevation; it has a single pitch slated roof, sloping downwards from north to south (see plate 68). The east elevation of the core building has a flight of concrete steps rising to the first floor, set on a brickwork base (see plate 69). A small detached toilet block with a flat roof stands immediately to the east (Building S6) (see plate 70).

Circulation: ground floor

3.59 At the time of the survey, access to the interior of the Building S2 was through the doorways in the north and east walls. The interior of this structure is divided into three cells, two to the north and one to the south. The two northern cells are of equal size and both have plastered stone walls and concrete floors (see plate 71). With the exception of a louvered vent high in the east wall of the east northern cell, there are few visible features of interest. The southern cell also has plastered stone walls and a concrete floor; a blocked window of the core building is visible in the south wall (see plate 72), and a number of fixtures appear to have been removed from the east end of the north wall. Adjacent to the south wall, a former concrete bed, perhaps for a generator, is visible, with a drain running north and

then east to the north-east corner of the room. There is also a smaller, slightly raised, concrete bed at the south-west corner of the room.

3.60 The interior of Building S3 butting the west side of the passage contains little or nothing of interest (see plates 73, 74 and 75), as does Building S4 to the south of the passage (see plate 76). The interior of the free-standing toilet block (Building S6) to the east of the core building contains two cells, one with an extant toilet (see plate 77).

3.61 The only access to the ground floor of the core building (Building S1) was through the passage at the west end. The walls of this passage are of brick, and include sections of re-used yellow, mid-blue and dark blue glazed bricks. A doorway in the east wall of the passage leads though into the ground floor proper of the core building, which was evidently once divided into several different areas. The walls of the western two-thirds are of whitewashed brickwork but unplastered (see plate 78). A projecting brick chimney breast to the south wall preserves the remains of a blocked fireplace opening with a substantial flat stone lintel (see plate 79). To the west of the fireplace, the remains of a long, two-tier cupboard or shelves placed on a bench-like structure can still be seen, retaining traces of a light blue paint. Above this structure, and painted the same colour, is a wooden coat rail with seven hooks; a similar rail, also painted light blue, but with only four hooks, is mounted on the north wall. The eastern third of the ground floor has plastered and painted walls; the walls were painted a pinkish colour to dado level and a cream or yellow above (see plate 80). This space was lit by a window opening in the east wall, fitted with a four-light wooden casement; the two upper lights are top hinged and open outwards. A blocking beneath this window indicates that it was once a doorway, providing another access under the external steps. Above the window opening, there is a horizontal timber which once had three of four electrical fittings (lights?) attached to it, and supplied by a cable entering through the north wall of the building. There are timber-lined vents placed at the west end of both the north and south walls.

3.62 A doorway in the south wall of the eastern area of the ground floor provides the only access to the shower block butting the south elevation. The shower block (Building S5) has a small circulation/drainage area on the north side, lit by window openings in the east and west walls. Each window opening is fitted with a two-light wooden casement; the upper frame is top-hinged and open outwards (see plate 81). There are four shower cubicles along the south side of the block, all of the same size and form (see plate 82). They are divided by concrete screens, and are floored with terrazzo. The shower fittings have all been removed, but have left three circular scars to each back wall, set just below a vent opening. The vents were once fitted with glazed wooden frames, but these have also all been removed. However, all vents have a rusted flat bar placed across the upper part of the inner face, with a central circular metal fitting; it is assumed that these too were used to secure the shower head. A drain is placed at the west end of the floor.

Circulation: first floor

3.63 The only access to the first floor of the core building (Building S1) was via the external concrete steps adjacent to the east gable. These led to a small external landing, with a doorway on the west side. The building was once provided with a reinforced concrete floor, but this had completely collapsed at the time of the survey, reducing the amount of detailed observation that could be undertaken here. Nevertheless, it is clear that the first floor, like the ground floor, was sub-divided into a number of different spaces. In contrast to the ground floor, all the

first floors walls are either plastered and painted or of glazed brick (see plate 83). There is a projecting brick chimney breast to the south wall located approximately above that on the ground floor, but fitted with a cast-iron rather than a stone lintel (see plate 84). To the immediate east of the chimney breast, a short section of the south wall is covered with glazed brick (see plate 85); a fitting has been removed from the glazed bricks at a lower level, and it seems likely they represent one side of a former first floor toilet.

3.64 Between the windows in the north elevation, a section of plank and batten boarding of unknown purpose is attached to the wall (se plate 86). Timber-lined vents are located at the east and west ends of both the north and south walls (see plate 87). The first floor was once ceiled, although only one ceiling beam remains *in situ* and it is badly charred. Above the former ceiling level, the external stone walls are lined with brick. The north wall incorporates large stretches of re-used glazed bricks of various colours. The form of the original roof structure has been lost, but it probably comprised softwood half-trusses of principal rafter and tie-beam form.

4 DISCUSSION AND CONCLUSIONS

4.1 As might be expected, the recording work undertaken at Walterclough Pit has raised a number of issues meriting further discussion.

4.2 Unfortunately, the early history of the pit remains obscure, and there are discrepancies between the generally stated opening date (1888) and early photographic and cartographic evidence. These discrepancies could be explained in several ways. The first is that the Ordnance Survey 1893 25" map (see figure 3, bottom) caught the shafts in the process of being sunk and the complex during construction, which is why the pit is not named. The early photograph (see figure 4, top) could therefore have been taken shortly after 1893, when sinking was either complete or nearing completion, and the structures shown in outline on the map having been erected. This would contradict the stated 1888 opening date for the colliery, and would also go no further to explaining the presence of the ropeway rising up the western slope of the valley. An alternative, and perhaps more likely, explanation is that the 1893 map shows the colliery in the process of transition, after sinking was complete but before the main structures had been built. Contemporary sources (Bennett College c.1910, vol 3, 54) suggest that during sinking, if the presence of a seam was proved beyond doubt, then a portion of the permanent plant may be erected at that time, including the upcast headgear, a winding engine house and the boilers. In this scenario, the structures shown in 1893, especially the apparently disused or roofless one, could be the remnants of buildings erected specifically for sinking, and the early photograph (see figure 4, top) may therefore show them in use prior to 1893.

4.3 Between 1893 and 1907, a large building, probably housing a steam winding engine and associated boiler house, was erected to the south-east of the shafts. Although later ventilation arrangements (see below) indicate that by the mid 20th century the western shaft was the upcast shaft, it is not clear what the arrangement was during earlier periods. Walterclough Pit clearly underwent substantial changes and expansion between 1907 and 1922, and the combined evidence suggests that this is most likely to have taken place just before or during the First World War, most probably as a result of its purchase by what was to become Brooke's Limited in 1906. The principal reason behind the purchase may have been to access to the pit's fireclay reserves, rather than coal deposits.

4.4 The changes instituted during this period of expansion not only increased the capacity of the pit, but also improved its transport links with the construction of the aerial ropeway up the eastern side of the valley to Hove Edge. Two of the buildings recorded by the survey belong to this period of expansion. The winding house (Building N2), clearly visible on the photographs of the colliery after the expansion had taken place, worked the western of the two shafts. It is clear from the photograph reproduced by Helme (2005) that the engine within the winding house was winding and lowering simultaneously, one cable from the top of the winding drum and the other from the bottom; this would have helped to balance the load, to some extent, on starting. Despite later alteration, the building preserves a similar plan form and arrangement to that when first built, with one of the original openings, for the upper winding cable, surviving above the lintel of the inserted doorway in the west gable. The smaller, blocked, opening to the south lines up with a small pulley suspended from a roof timber, and the cable that once passed through these openings may have been used to signal to the engineman, perhaps associated with an indicator to show where the cages were in the shaft and the exact positions to stop.

4.5 The original engine housed within the building would have been horizontal and steam-driven, and was almost certainly of either twin tandem form, with a pair of engines (one to either side) coupled direct to the drum shaft, or of tandem compound form (Bennett College c.1910, vol 5, 210-215). The use of compound engines was often associated with a concern for fuel economy, although this would presumably not have been a consideration at a coal mine. For the same reason, the use of condensers may also not have been necessary; the surviving reservoir is also relatively small, and so was perhaps only sufficient to provide water for the boilers. The pit surviving within the floor of the building has been modified in form, and may well once have continued further to the south. This is the most likely location for the winding drum, which may therefore have had a diameter of c.2m. This dimension is also perhaps suggested by the relative angles of the winding cables in the c.1915-25 Helme photograph (see figure 6, top) - assuming a shaft depth of c.90m, then a drum of this diameter would require only 15 revolutions for complete operation. A horizontal steam engine could have been positioned on the older concrete strip to the south, and the juxtaposition of the two features may indicate that a tandem compound horizontal engine was the most likely original form, notwithstanding the comments above. The flywheel shaft would probably have been geared to the winding drum at a ratio of 1:5 to 1:10, providing greater ease of starting and better control to ensure stopping in the correct position. It is strongly suspected that the central opening in the east gable of the building (now blocked) had a relationship with the two brackets suspended from the roof timbers, which formerly supported a pair of timbers running west to the roof truss, but it is not certain if these are associated with the original steam engine. The steam pipe from the boiler house to the engine may have entered the winding house through the central opening in the east gable, or perhaps through the blocked opening beneath it.

4.6 The boilers for the engine would have been housed in the large building to the east of the winding house, set on the lower ground below the revetment wall; as noted above, surviving pipes and recesses within the lower part of the building's east external gable would have been related to the supply between the two. This building had been substantially enlarged between 1907 and 1922, but photographic evidence indicates that it must have housed a second winding engine for the eastern shaft (see figure 6, top). Whether this was an earlier engine surviving from before 1907, or one which had been installed when the later winding house (Building N2) was built, is uncertain. However, it is noticeable on the photographs that the finials and roof structure of the building are very similar to the those of the later winding house, perhaps indicating that it was remodelled or even raised by a storey during the same period. It is assumed that latterly the pit went over to electrical winding and there is surviving evidence for a three phase and neutral supply in Building N2. One would have expected facilities for the generation of electricity and perhaps also for driving compressors at the pit from a relatively early date, but the scale of post-1969 demolition means that it is now impossible to locate any such features.

4.7 The second surveyed building, erected between 1907 and 1922, the western cell of Building N1, was formerly connected to the structure running between the shafts. This structure would have served multiple purposes, including acting as a loading bay for the ropeway, but it also served as an assembly point for those entering and/or leaving the mine via the shafts. It is highly likely that the western cell of Building N1 was associated with the latter function from the start, and the presence of the probable early 20th century tally holders with enamelled discs within this and the other cells supports this idea; the surviving numbering of the enamelled discs suggests that up to 60 people may have been working

underground at Walterclough Pit at any one time. The western cell was subsequently expanded east in two separate phases after 1933, and it may have served as the lamp or helmet storage area. It is interesting to note that the building appears to be built from bricks manufactured locally by Brooke's Limited, and it is considered probable that some of the flagstones, coping and other dressings surviving around the complex are also products of the same works.

4.8 Despite appearances, cartographic evidence suggests that neither the small fan house (Building N3) nor the large fan house (Building N4) were built before 1948, although both conform in placement and function to standards for ventilation which had been established before the First World War. The ventilation system at Walterclough operated on the exhaustion principle, whereby an artificial air current was generated through the mine workings by a fan or fans drawing air up through the upcast shaft, causing atmospheric pressure to force it down the downcast shaft. This was the most common form of ventilation employed in British mining, with use of the American compression system being an exception (Bennett College c.1910, vol 1, 95). It was usual practice to place the fan on the surface, near the mouth of the upcast shaft, but at a suitable distance so that it would not be damaged in the event of an explosion, when it would have been inoperable at the time it might most be needed. Communication between the upcast shaft and the fans was effected by a fan drift (Bennett College c.1910, vol 1, 102-105).

4.9 The position of the fan drift at Walterclough indicates that at the time it was built, the western shaft, wound from Building N2, was the upcast shaft. Both fans had a single inlet from the drift, and the former arrangement of the airtight doors in the associated passage shows that they could be used either singly or in unison. This could be because one fan was earlier than the other, and the second was needed to supplement its operation, or because different levels of ventilation were required depending on how many people were below ground. It is clear that neither fan at Walterclough was one of the large diameter types installed at both coal and ironstone mines since the mid 19th century (Chapman 1992, 45-57). Although apparently of somewhat smaller diameter than surviving examples at mines in both Britain (e.g. Celynen North Colliery at Abercarn, South Wales (*www.aditnow.co.uk*) or abroad (e.g. New Zealand (Staton 2011)), it is likely that the fan in the small fan house (Building N3) was a variant of the 'Sirocco' type, small diameter (30 to 45 inches) quick running fans held within a riveted steel plate volute casing. As well as being highly efficient, the small size of these fans also meant that they could be directly driven by an electric motor mounted on the same bed plate (Bennett College c.1910, vol 1, 107, 124-127 & 130), as was the arrangement within the small fan house. The surviving structure of the large fan house and the materials used in its construction suggests that modifications may have been undertaken as late as the 1950s or 1960s.

4.10 Like the large fan house, the southern grouping of buildings, including the mine offices and showers (Buildings S1 and S5), also continued to be modified right up until the closure of the mine in 1969, and almost certainly afterwards too. With only limited post-1933 cartographic evidence, a definite date cannot be placed on the buildings, but the core building may date from 1933-1948. The remainder are unlikely to pre-date c.1950. The ground floor of the core building (Building S1) was mostly probably given over to storage lockers, and a changing room leading through to the shower block. The provision of pithead baths had first been legislated for as early as 1911, but for various reasons, many mines (particularly privately-owned ones) were slow to make any such provision and indeed many did not do so until after the formation of the National Coal Board in 1946. The first floor of the core building was probably given over to offices and toilets.

Walterclough Pit remained in the private ownership of Brooke's Limited until the firm closed in 1969, when the pit was also abandoned.

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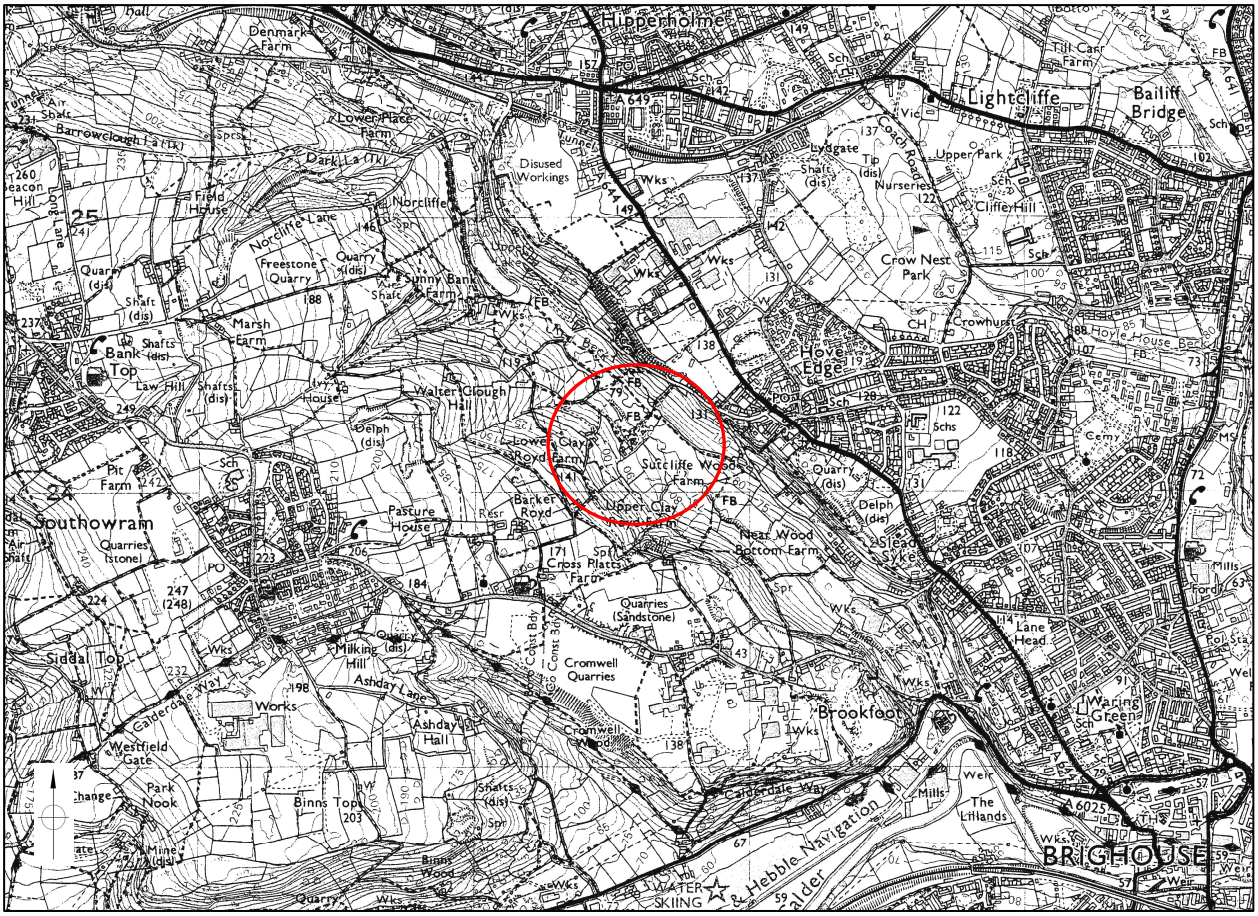
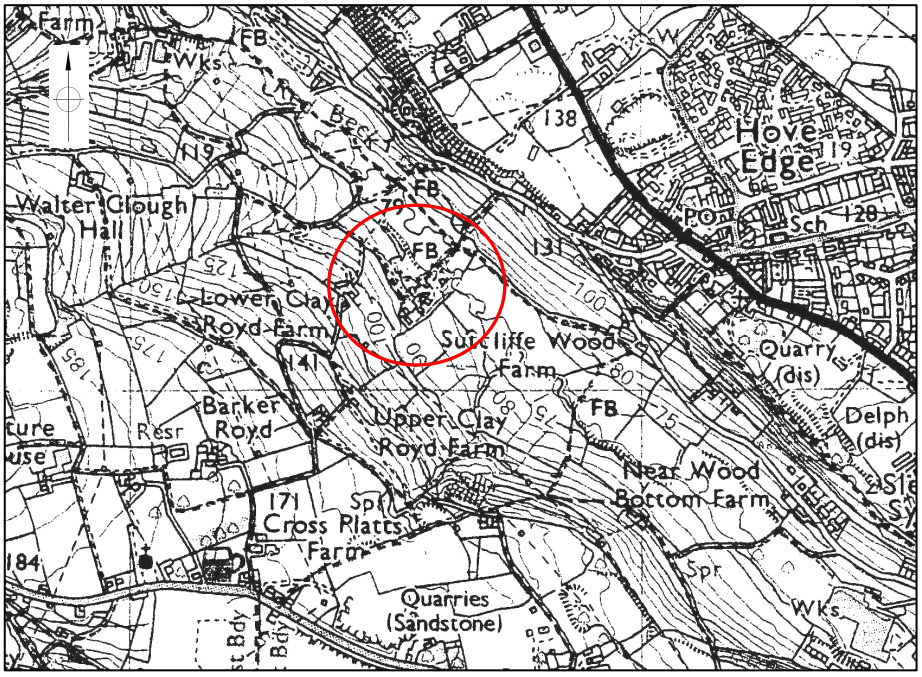
6 ACKNOWLEDGEMENTS

6.1 The building recording at Walterclough Pit was commissioned by the owner, Messrs D and J Gibson through Michael Townsend of Townsend Planning Consultants Ltd. Thanks are due to Messrs Gibson for their assistance on site, and the efficient way in which the site was cleared of debris and vegetation to facilitate the recording.

6.2 The on-site survey work was carried out by Shaun Richardson of EDAS, assisted by Richard Lamb. The photographs were taken by Stephen Haigh. The documentary research was carried out by Shaun Richardson, who also produced a draft report and site archive. The final report was produced by Ed Dennison, with whom the responsibility for any errors or inconsistencies remains.





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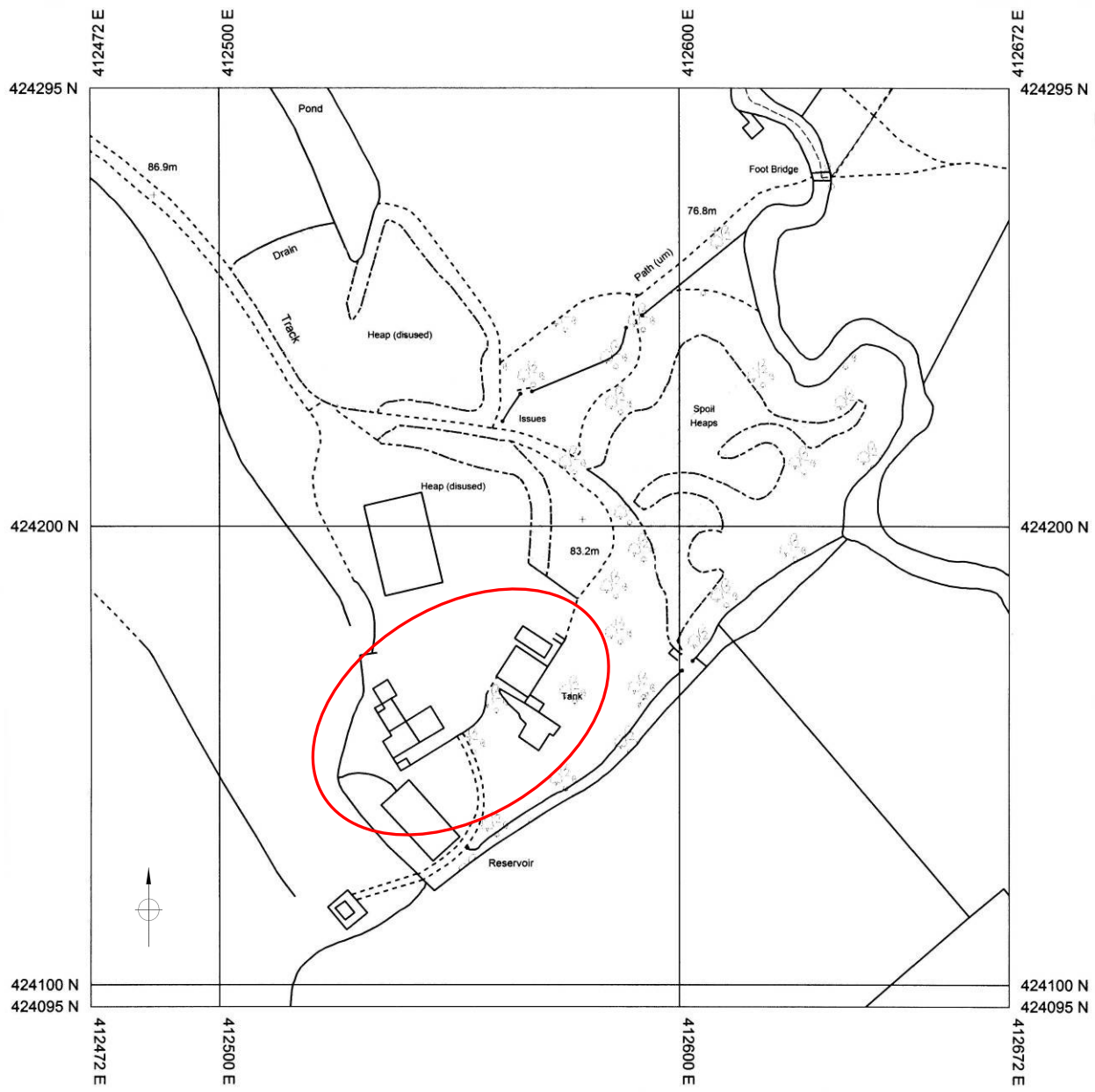
EDAS	FIGURE: 1



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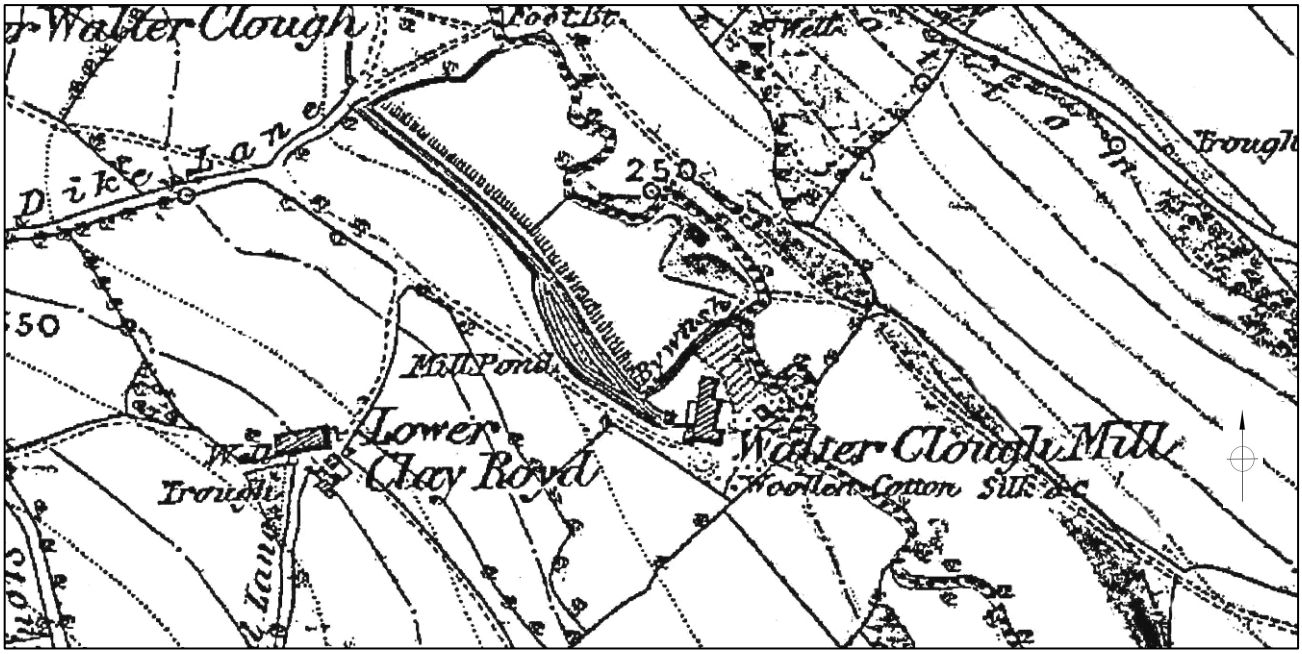

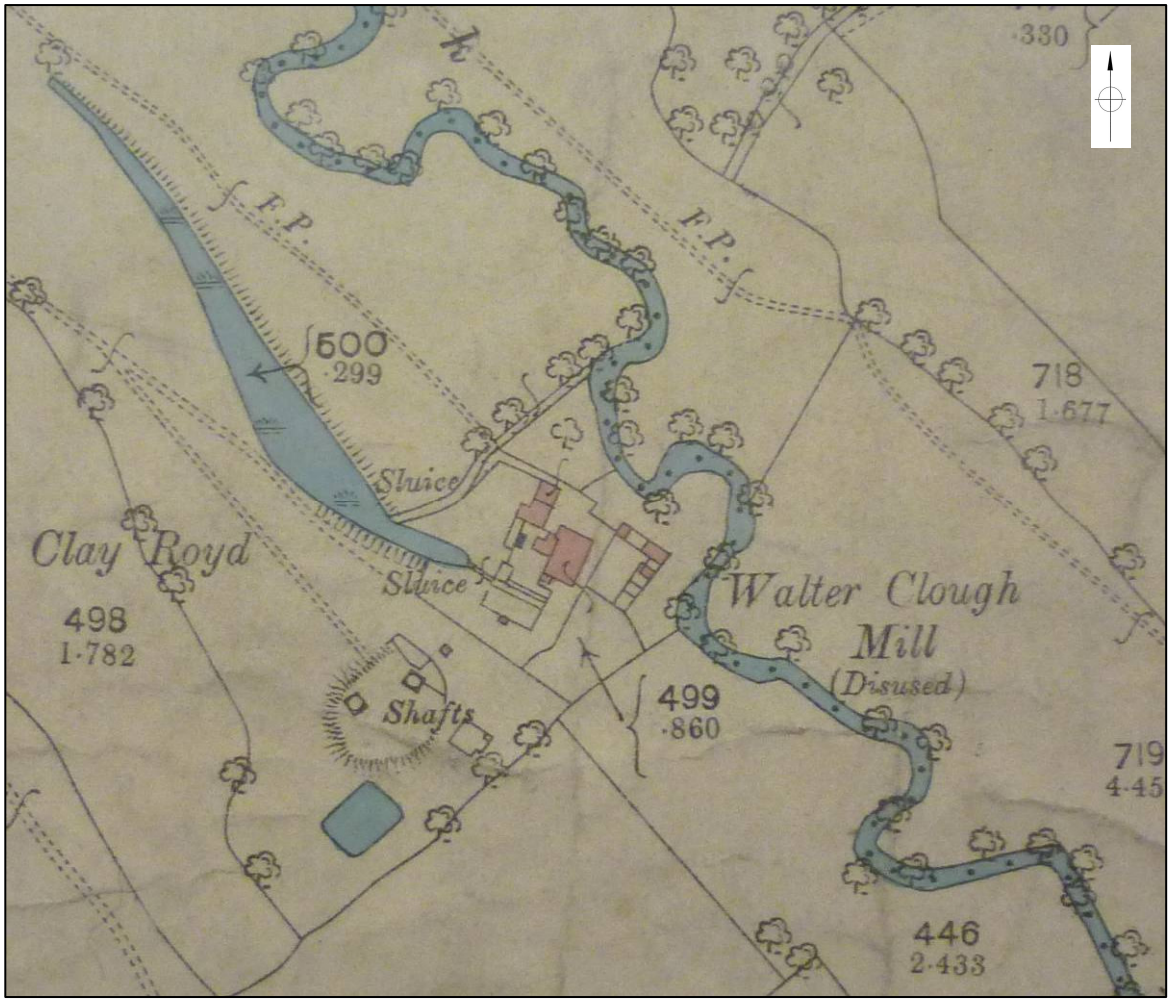

Sources:

Top: Ordnance Survey 1854 6” map sheet 231 (surveyed 1849-50).

Bottom: Ordnance Survey 1893 25” map sheet 231/10 (surveyed 1892).

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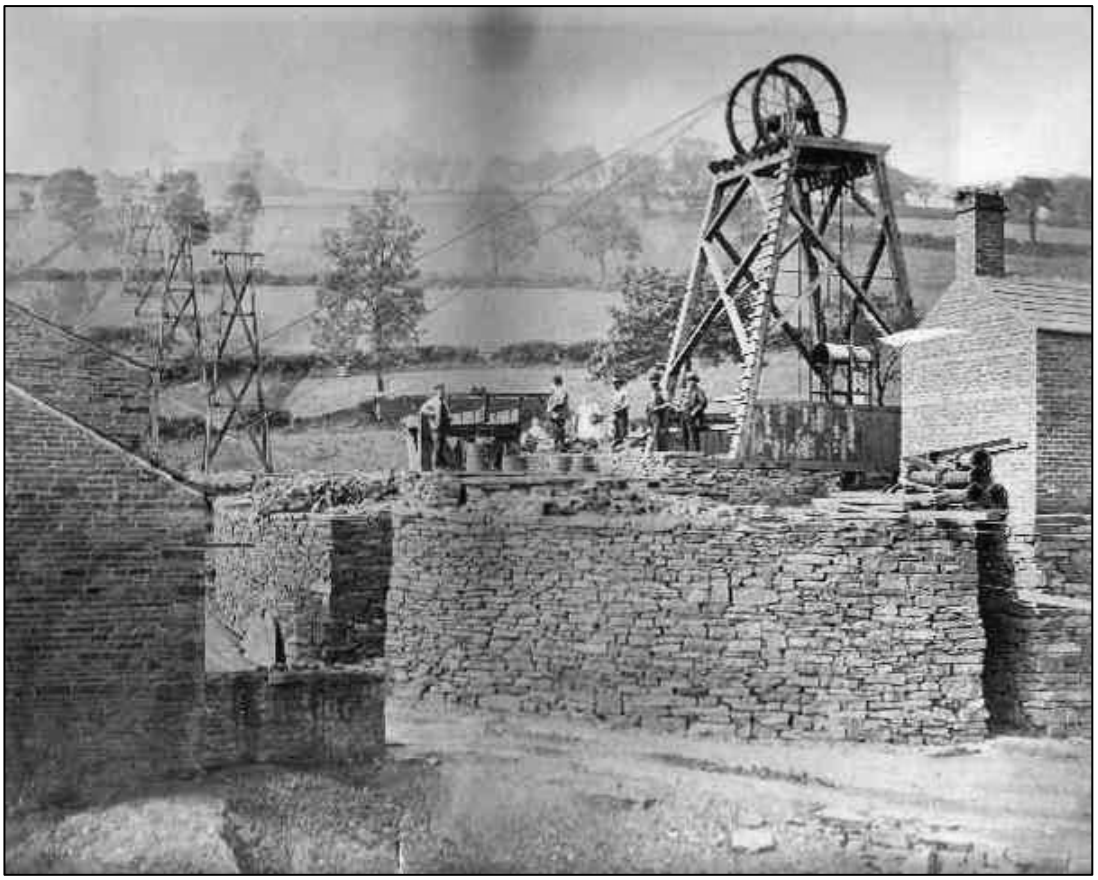
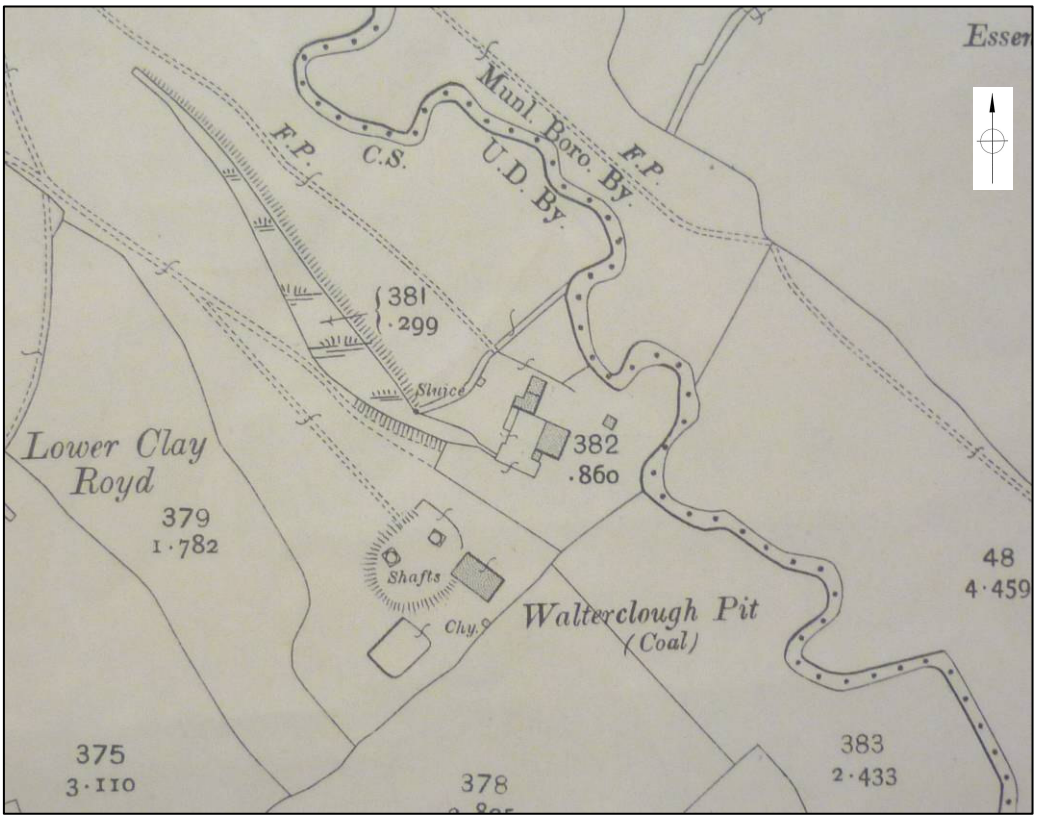
EDAS	FIGURE: 3





Sources:

Top: Malcolm Bull's Calderdale Companion.

Bottom: Ordnance Survey 1907 25" map sheet 231/10 (revised 1905).

PROJECT	
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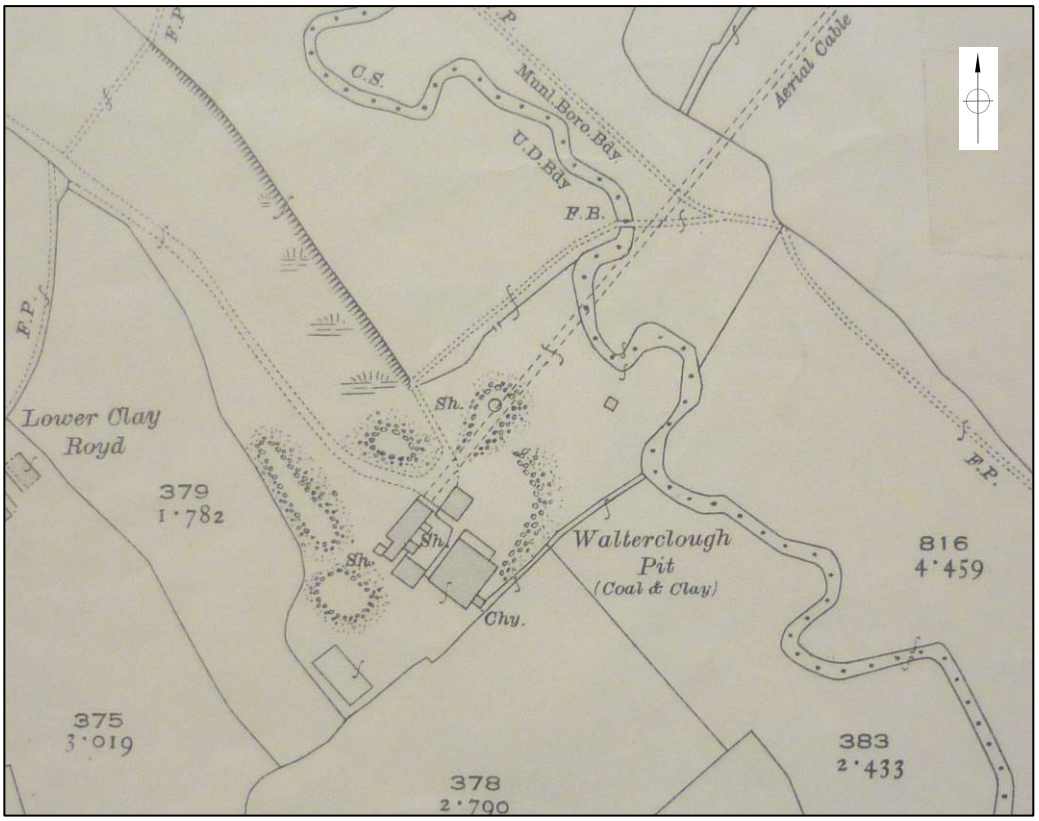
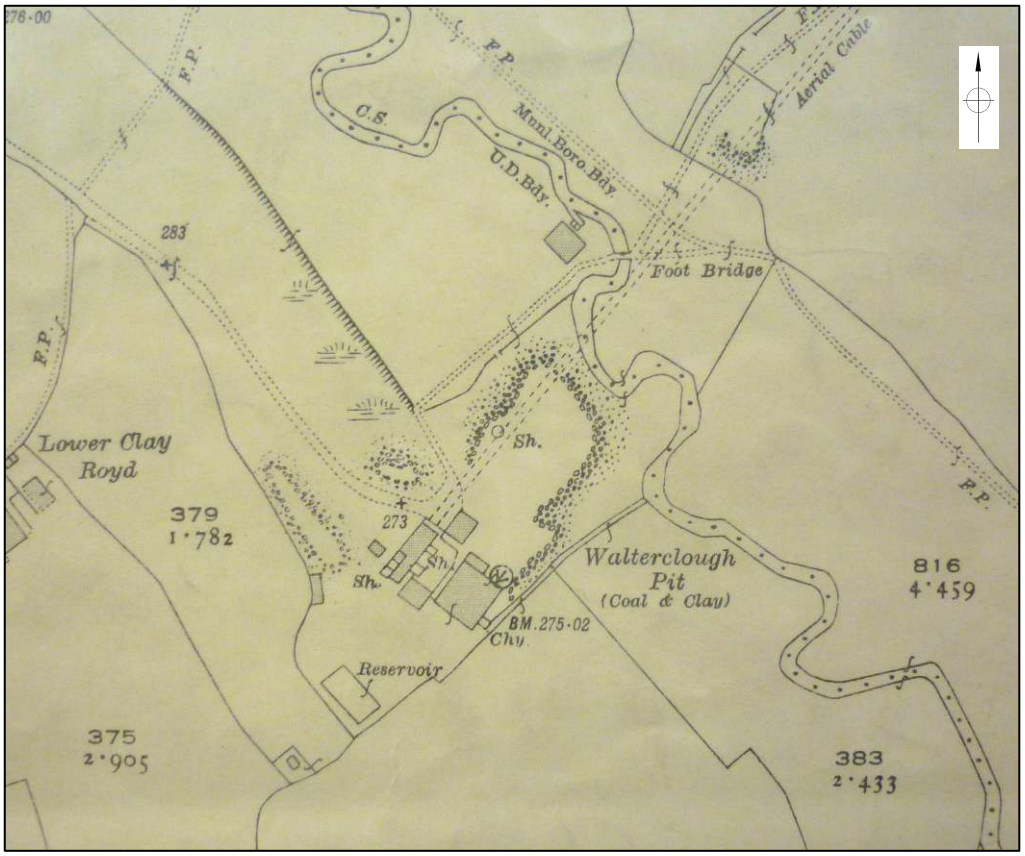
TITLE	
EARLY PHOTOGRAPH AND 1907 MAP	
SCALE	DATE
NTS	AUG 2012
EDAS	FIGURE 4





Sources:

Top: Ordnance Survey 1922 25" map sheet 231/10 (revised 1914-15).

Bottom: Ordnance Survey 1933 25" map sheet 231/10 (revised 1930).

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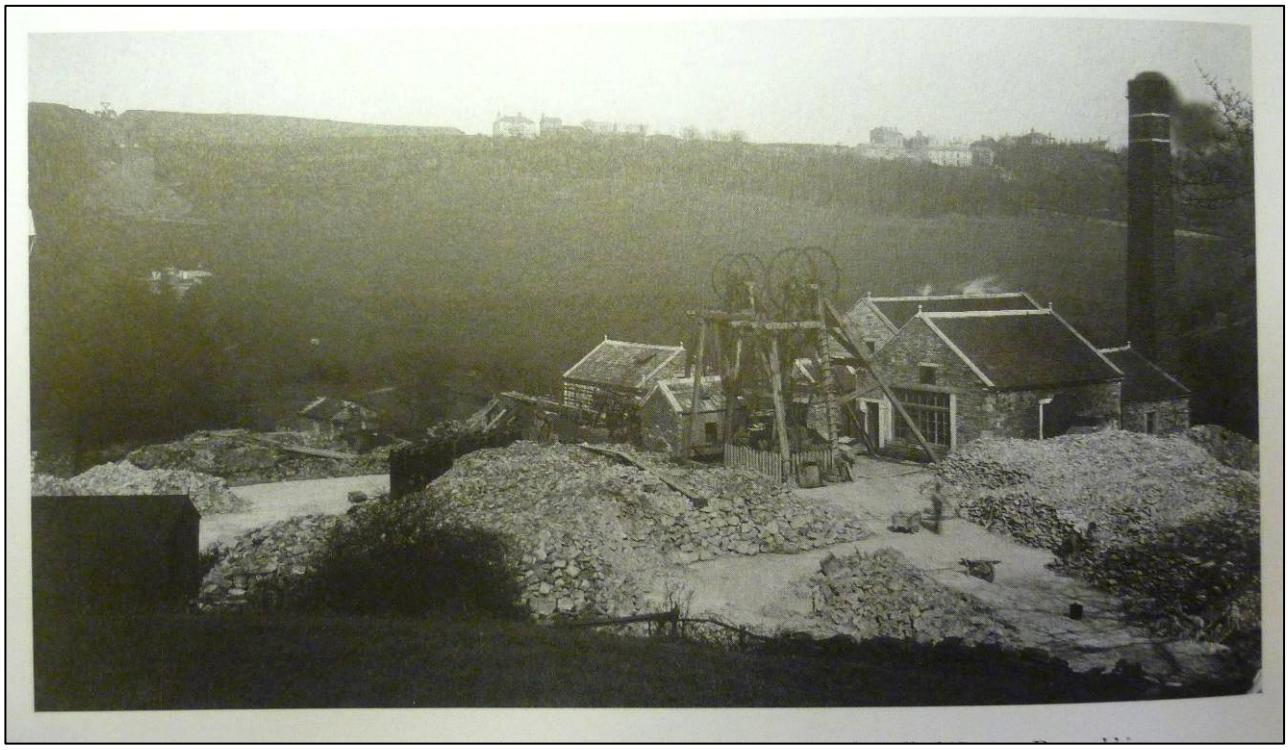


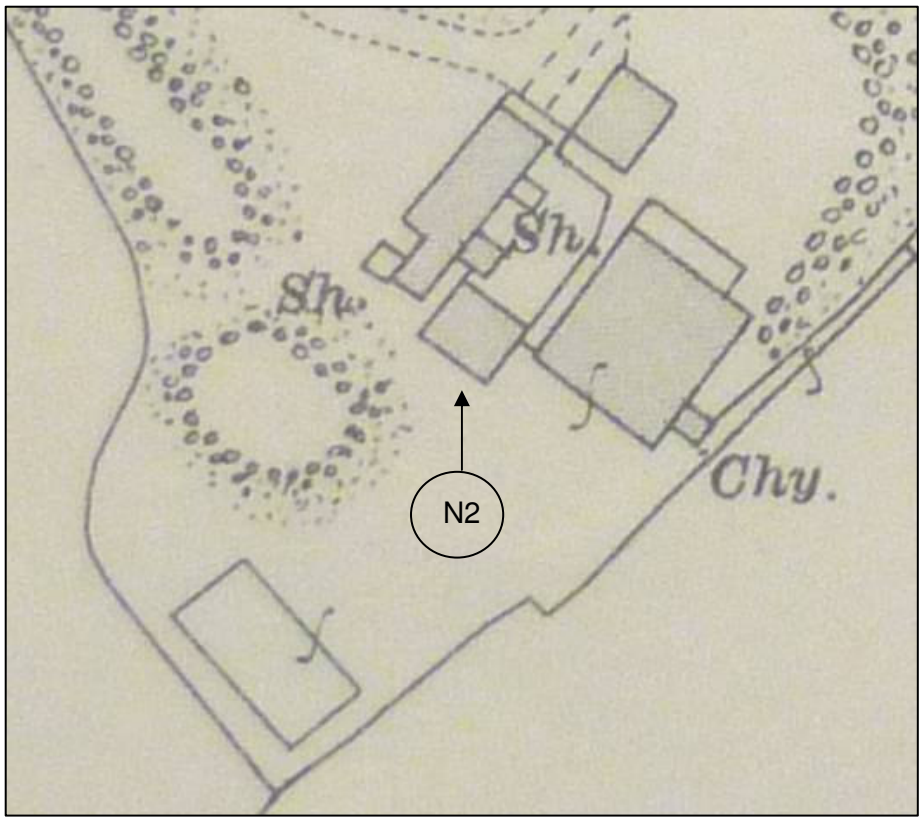
Sources:

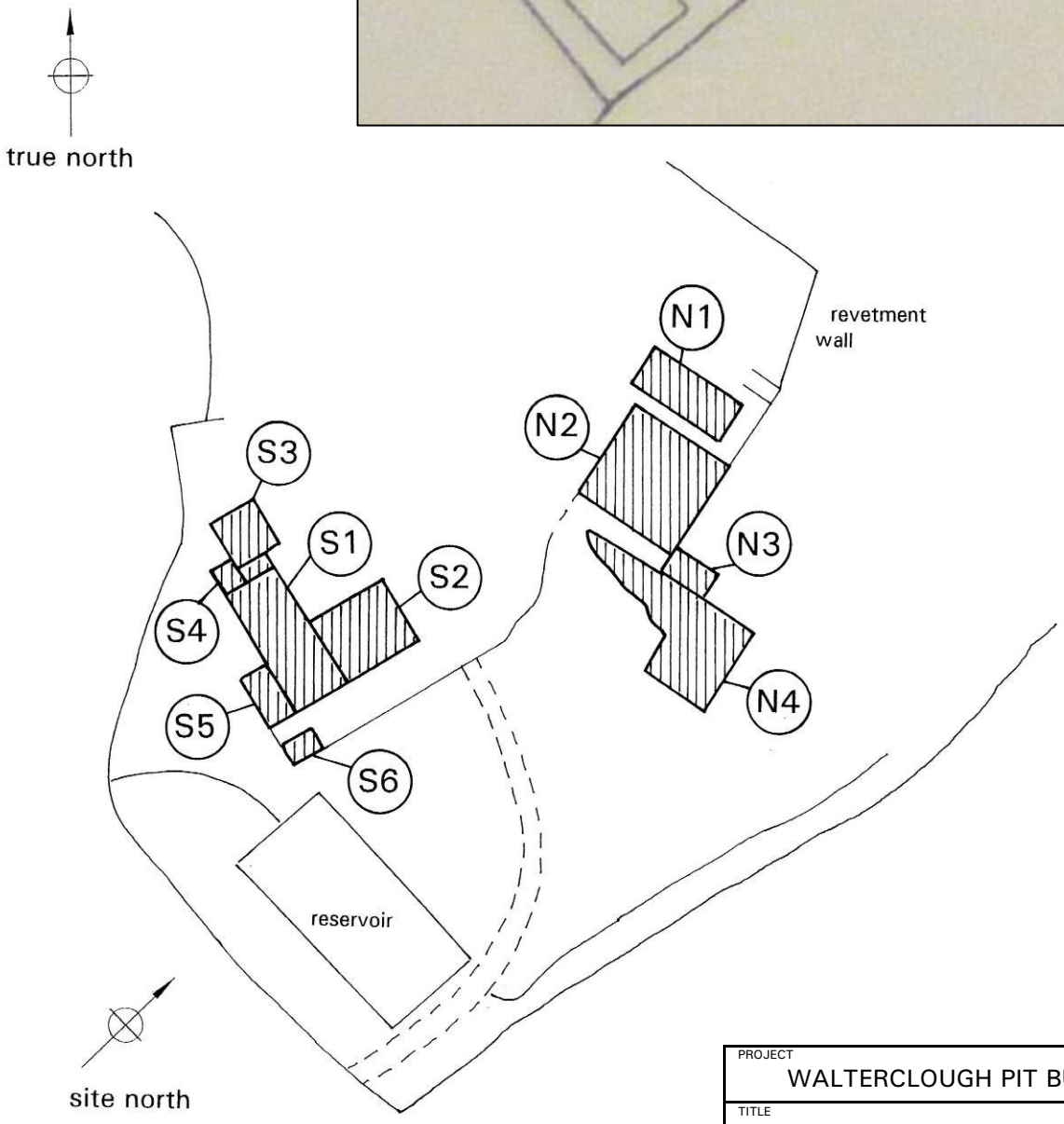
Top: Helme 2005.

Bottom: Malcolm Bull's Calderdale Companion.

PROJECT	
WALTERCLOUGH PIT BUILDINGS	
TITLE	
c.1915-1925 PHOTOGRAPHS	
SCALE	DATE
NTS	AUG 2012
EDAS	FIGURE 6

Extract from Ordnance Survey 1922 25" map (sheet 231/10).





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PROJECT	WALTERCLOUGH PIT BUILDINGS
TITLE	NORTHERN GROUP OF BUILDINGS
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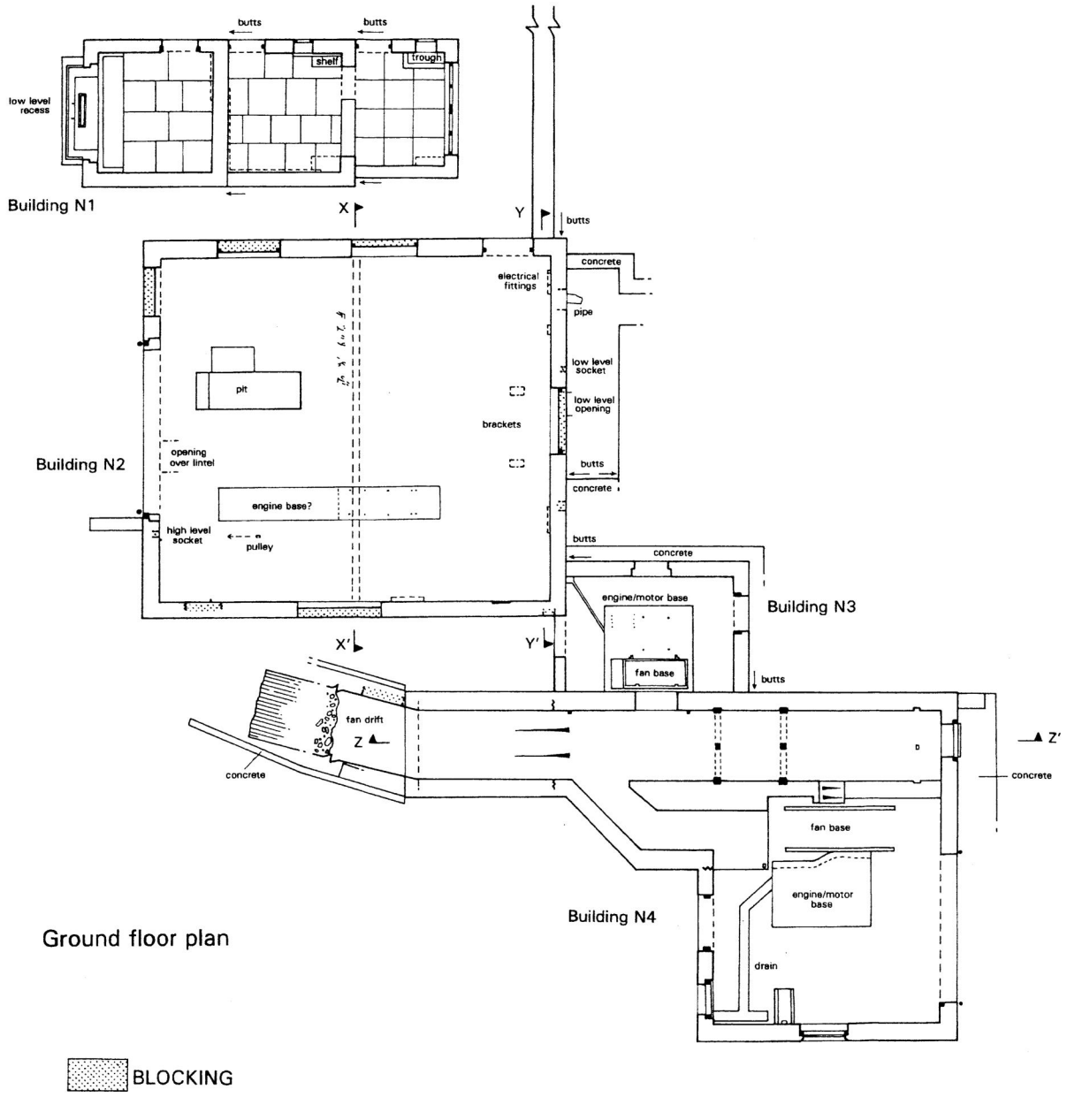
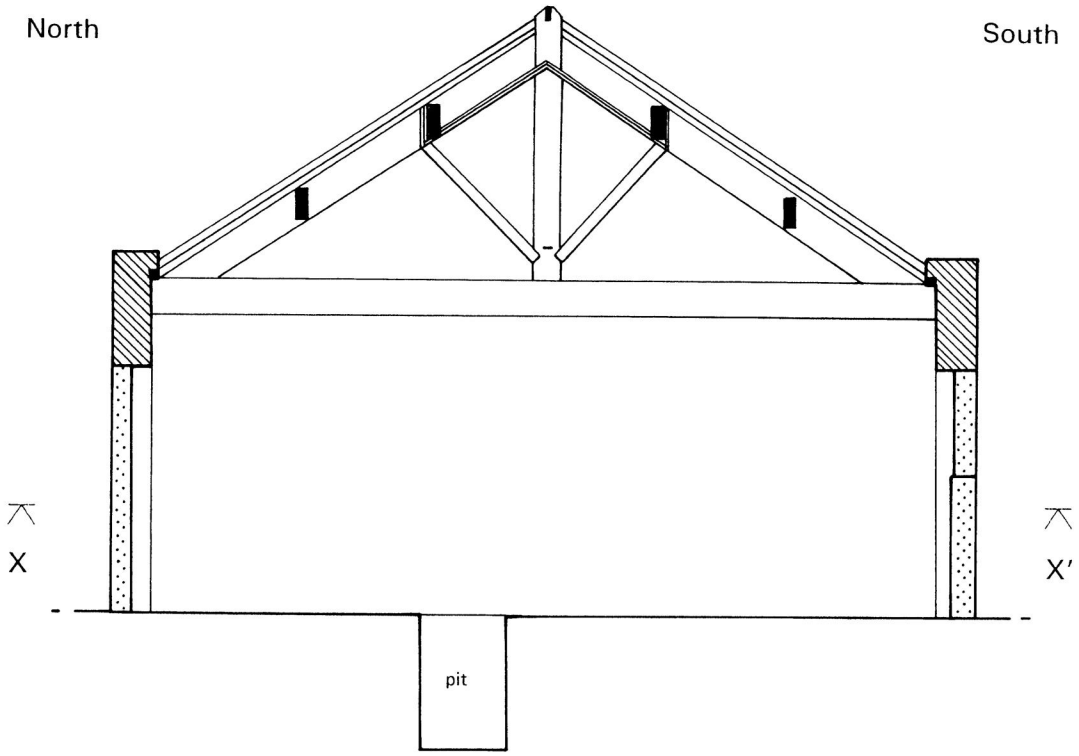
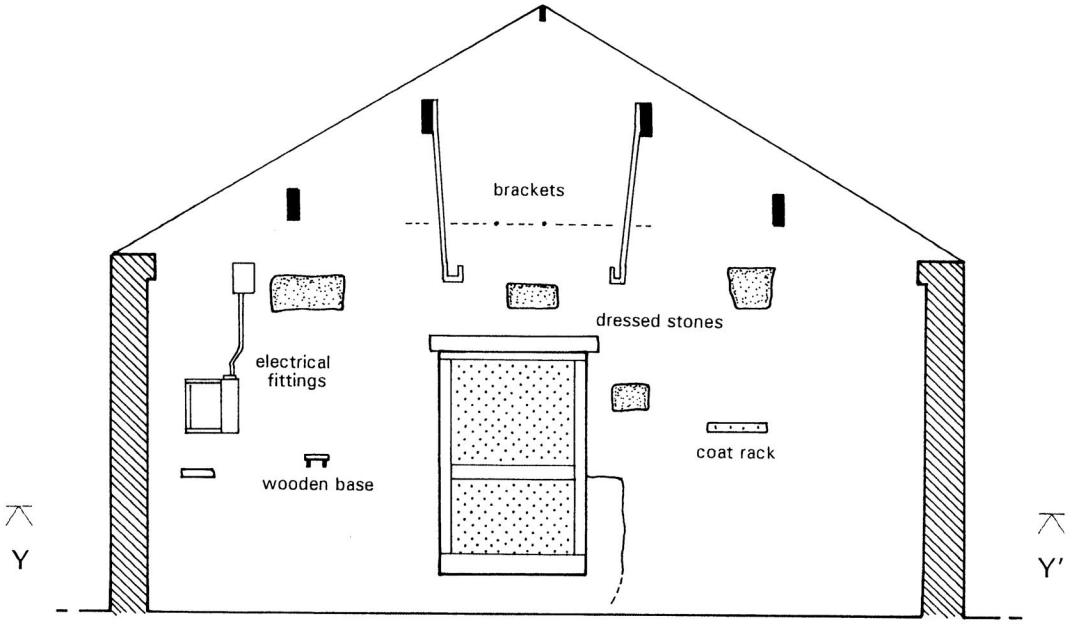
EDAS	FIGURE: 8







BLOCKING

0 5m

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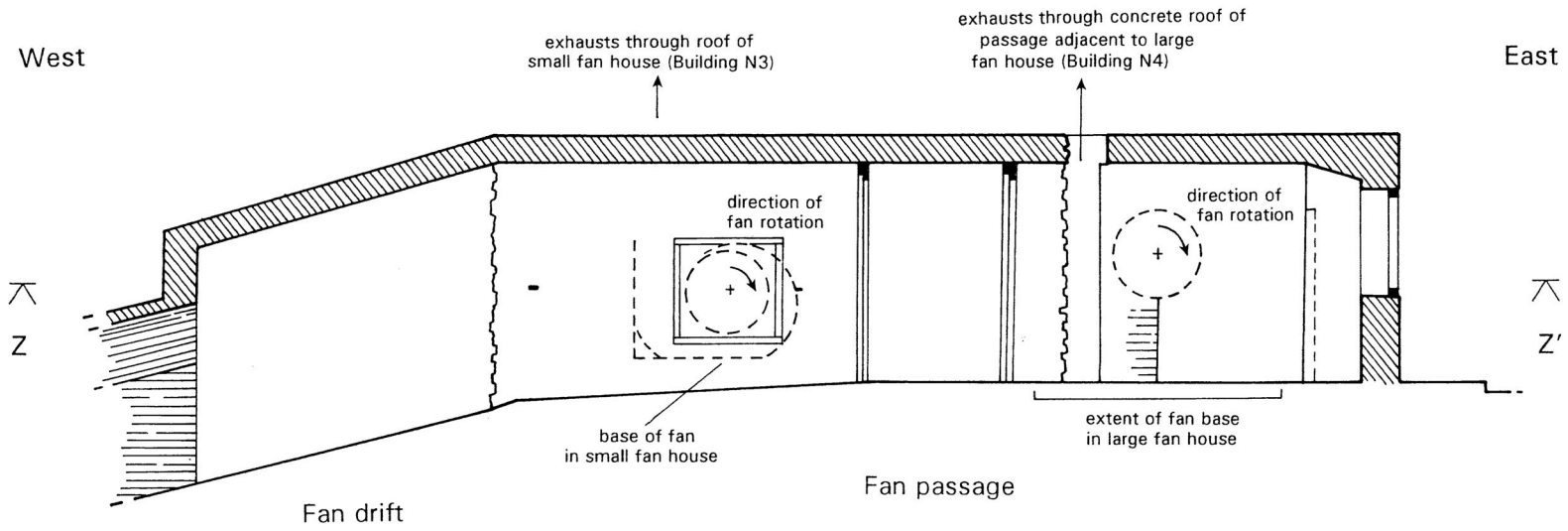

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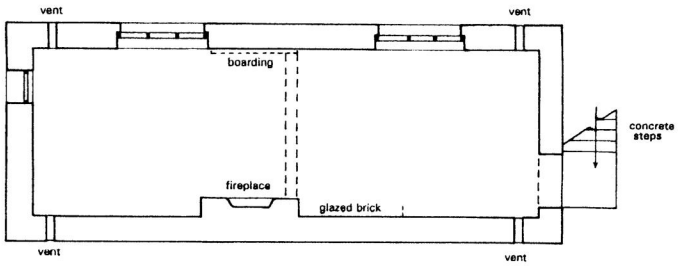
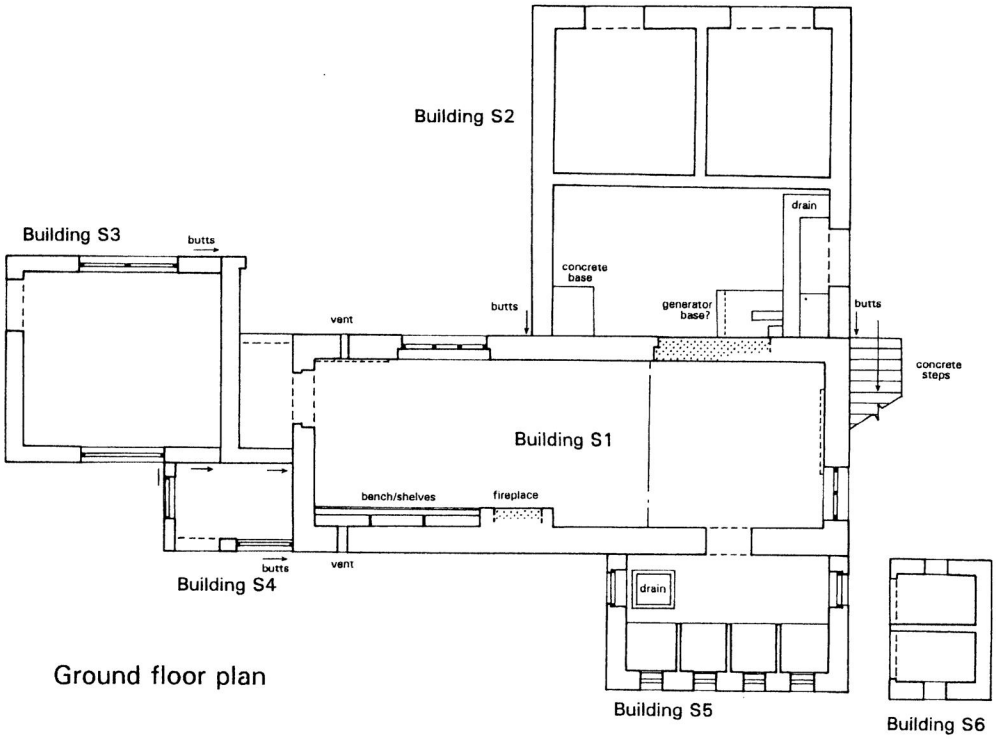


Building S1

First floor plan



Ground floor plan

BLOCKING

site north

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PROJECT: WALTERCLOUGH PIT BUILDINGS	
TITLE: SOUTHERN GROUP OF BUILDINGS	
SCALE: AS SHOWN	DATE: AUG 2012
EDAS	FIGURE: 11

APPENDIX 1
PHOTOGRAPHIC RECORD

PHOTOGRAPHIC REGISTER: BLACK AND WHITE PHOTOS

Film 1: Medium format black & white photographs taken 25th June 2012
Film 2: Medium format black & white photographs taken 25th June 2012
Film 3: Medium format black & white photographs taken 25th June 2012
Film 4: Medium format black & white photographs taken 25th June 2012
Film 5: Medium format black & white photographs taken 25th June 2012
Film 6: Medium format black & white photographs taken 25th June 2012
* = Large Print (10 x 8") only

Plate	*Subject*	*Film*	*Frame*	*Scale*
1	Northern group of buildings, looking NE	5	7	2m
2	Mine offices (Buildings S1, S5 and S6), looking SE	6	11*	2m
3	Northern and southern groups of buildings, looking SE	6	18*	-
4	Building N2, revetment wall to N, looking NW	6	5	2m
5	Building N2, revetment wall to N, looking W	6	9	2m
6	Building N2, revetment wall to N and base, looking NW	6	6	2m
7	Building N1, exterior, looking SE	5	11*	2m
8	Building N1, floor to west cell, looking E	1	12	2m
9	Building N1, west external gable, looking E	5	9	2m
10	Building N1, interior west cell, door to N wall, looking N	1	17	1m
11	Building N1, interior west cell, looking NE	1	13	2m
12	Building N1, interior west cell, opening and plinth to W side, looking NW	1	15	1m
13	Building N1, interior west cell, former tallies to W wall, looking NW	1	16	1m
14	Building N1, interior west cell, former tallies to W wall, looking W	2	4	1m
15	Building N1, central cell, vent and shelf to north wall, looking NE	2	5	1m
16	Building N1, central cell, west wall, looking W	2	9	2m
17	Building N1, interior central cell, looking SE	2	11	1m
18	Building N1, interior east cell, looking NE	2	10	1m
19	Building N1, interior east cell, fittings to south wall, looking SE	2	7	1m
20	Building N2, exterior, looking NE	5	5*	2m
21	Building N2, internal pit, looking E	1	10	2m
22	Building N2, north side of internal pit, looking N	1	18	2m
23	Buildings N1 and N2, west gables, looking E	5	2	2m
24	Building N2, west gable, looking E	5	4	2m
25	Building N2, south elevation, looking N	5	12	2m
26	Building N2, north elevation, looking SE	5	10	2m
27	Building N2, east gable, looking W	6	3	2m
28	Building N2, base of east gable, looking NW	6	4	2m
29	Building N2, interior, looking NW	1	4	2m
30	Building N2, interior, looking NE	1	2	2m
31	Building N2, interior east wall, looking E	2	2*	2m
32	Building N2, electrical fittings at north end of east wall, looking NE	1	6	1m
33	Building N2, interior, looking SE	1	1	2m
34	Building N2, interior, looking SW	1	5	2m
35	Building N2, truss, looking NE	1	11	-
36	Building N2, guide pulley, looking SW	1	9	-
37	Building N2, brackets from truss, looking E	1	7	2m
38	Buildings N2 and N3, looking NW	6	1*	2m
39	Building N3, interior, looking W	3	11	2m
40	Building N3, external west elevation, looking E	5	15	2m
41	Building N3, fan case and base, looking E	3	13	1m
42	Building N3, fan case, looking SW	3	12	1m
43	Building N3, fan case, looking SE	3	15	1m
44	Building N4, looking E	5	6*	2m
45	Building N4, external west elevation, looking E	5	16	2m
46	Building N4, external south elevation, looking NE	5	13	2m
47	Building N3, exterior, looking SW	6	7	2m
48	Building N4, external east elevation, looking NW	5	18	2m
49	Building N4, external south elevation, looking N	5	17	2m
50	Building N4, interior, looking SE	3	17	2m

51	Building N4, interior, looking SW	3	16	2m
52	Building N4, former fan and engine base, looking SW	4	16	2m
53	Building N4, fan position, looking N	3	18	2m
54	Building N4, former fan passage entrance, looking NW	4	1	2m
55	Building N4, interior of fan passage, east end, looking E	4	15	1m
56	Building N4, interior to fan passage, looking E	4	9	1m
57	Building N4, fan passage, east door face, looking W	4	12	1m
58	Building N4, fan passage, west door face, looking E	4	11	1m
59	Building N4, interior of fan passage, looking W	4	13	1m
60	Building N4, opening in north wall of fan passage to Building N3, looking NE	4	10	1m
61	Building N4, fan passage to drift, looking W	4	6	2m
62	Building N4, entrance to fan drift, looking W	4	5	1m
63	Building N4, interior of fan drift, looking W	4	4	1m
64	Building N4, blocked opening in north side of fan drift, looking NW	4	2	1m
65	Mine offices (Buildings S1 to S3), looking S	6	10	2m
66	Mine offices (Buildings S1, S2 and S6), looking SW	6	17	2m
67	Mine offices (Buildings S1, S3, S4 and S5), looking NE	6	12	2m
68	Mine offices (Buildings S1 and S5), looking N	6	13	2m
69	Mine offices (Buildings S1 and S2), looking SW	6	16	2m
70	Mine offices (Buildings S1, S5 and S6), looking NW	6	15*	2m
71	Building S2, typical interior of one of north cells, looking SW	3	5	1m
72	Building S2, south wall of south cell, looking SW	4	17	2m
73	Building S3, interior, looking SW	2	12	2m
74	Building S3, interior, looking SE	2	13	2m
75	Building S3, interior, looking NW	2	15	2m
76	Building S4, interior, looking NE	5	1	1m
77	Building S6, interior, looking E	4	18	1m
78	Building S1, ground floor interior, looking NW	2	17	2m
79	Building S1, ground floor interior, looking SW	2	18	2m
80	Building S1, ground floor interior, looking E	2	16	2m
81	Building S5, showers, looking W	3	10	1m
82	Building S5, typical appearance of showers, looking SW	3	9	1m
83	Building S1, first floor interior, looking E	3	6	2m
84	Building S1, first floor fireplace, looking S	3	7	1m
85	Building S1, first floor interior, looking W	3	3	2m
86	Building S1, first floor interior, looking NW	3	1	2m
87	Building S1, first floor interior, north wall showing vent, looking N	3	4	-

Plate 1: Northern group of buildings, looking NE (photo 5/7).

Plate 2: Mine offices (Buildings S1, S5 and S6), looking SE (photo 6/11).

Plate 3: Northern and southern groups of buildings, looking SE (photo 6/18).

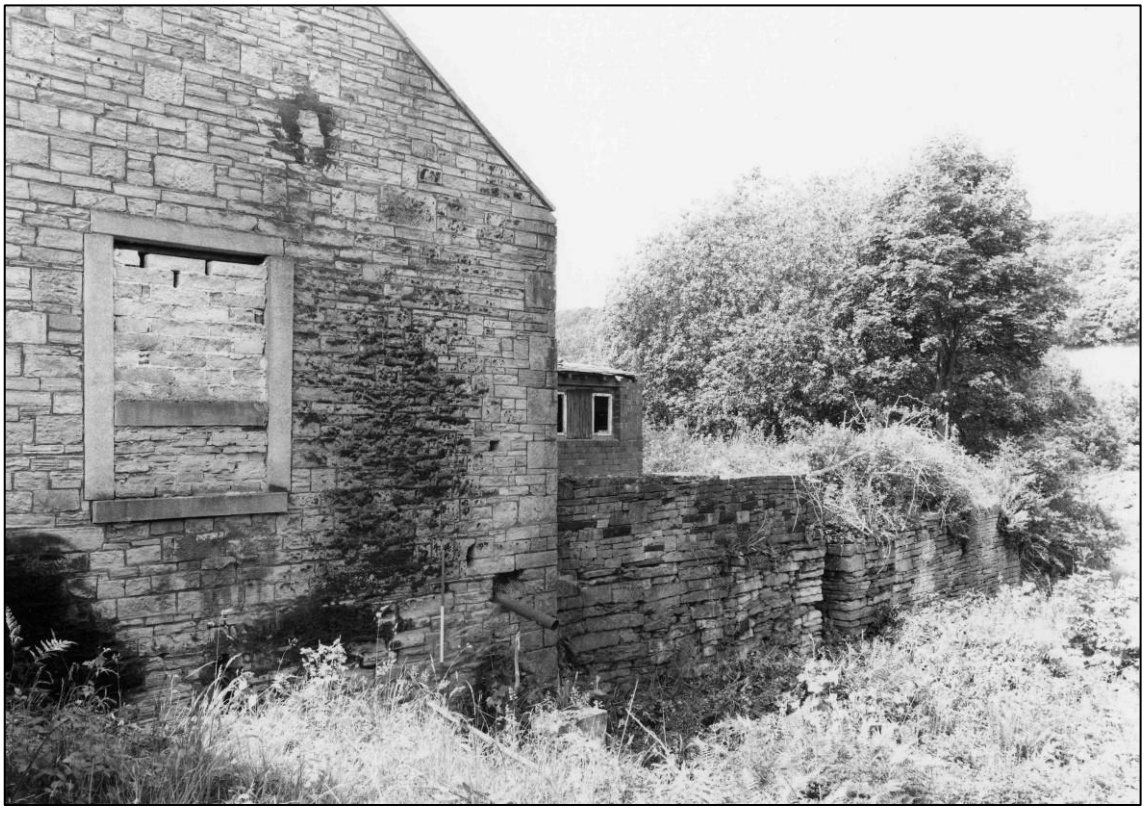


Plate 4: Building N2, revetment wall to north, looking NW (photo 6/5).

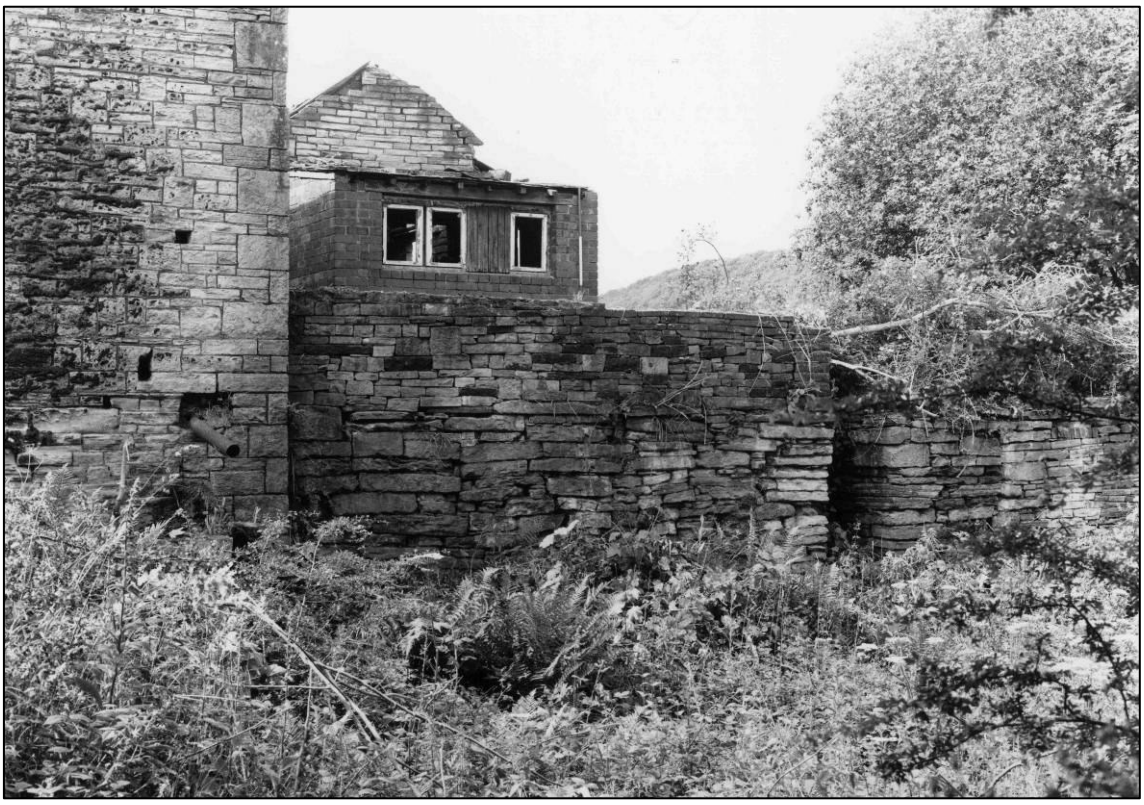


Plate 5: Building N2, revetment wall to north, looking W (photo 6/9).

Plate 6: Building N2, revetment wall to north and base, looking NW (photo 6/6).

Plate 7: Building N1, exterior, looking SE (photo 5/11).

Plate 8: Building N1, floor to west cell, looking E (photo 1/12).

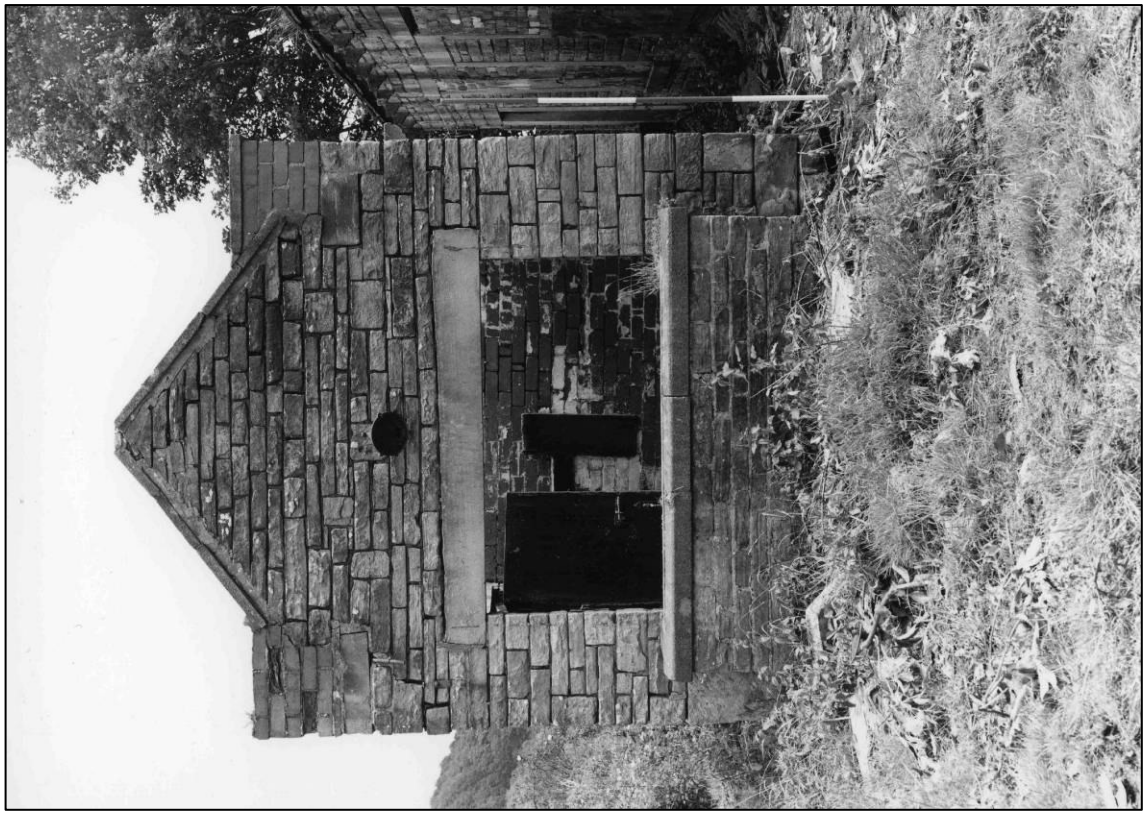


Plate 9: Building N1, west external gable, looking E (photo 5/9) (top to left).

Plate 10: Building N1, interior west cell, door to north wall, looking N (photo 1/17) (top to left).

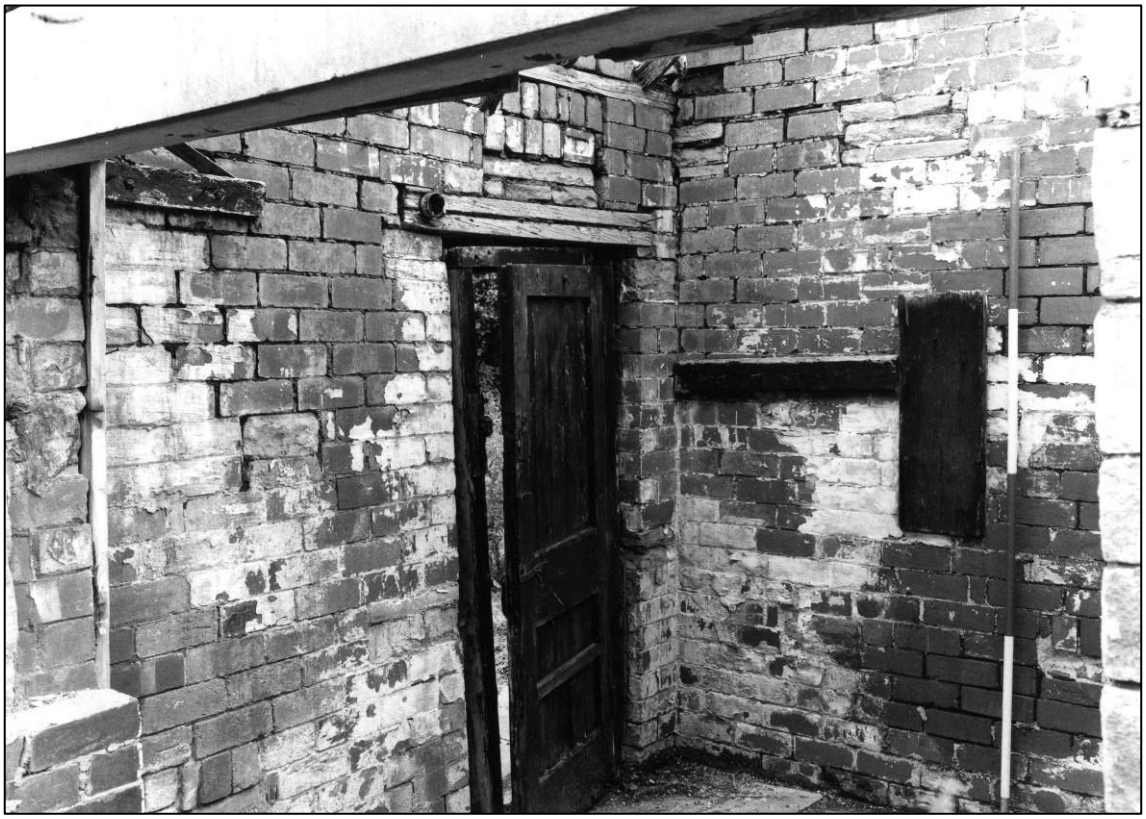


Plate 11: Building N1, interior west cell, looking NE (photo 1/13).

Plate 12: Building N1, interior west cell, opening and plinth to W side, looking NW (photo 1/15).

Plate 13: Building N1, interior west cell, former tallies to W wall, looking NW (photo 1/16) (top to left).

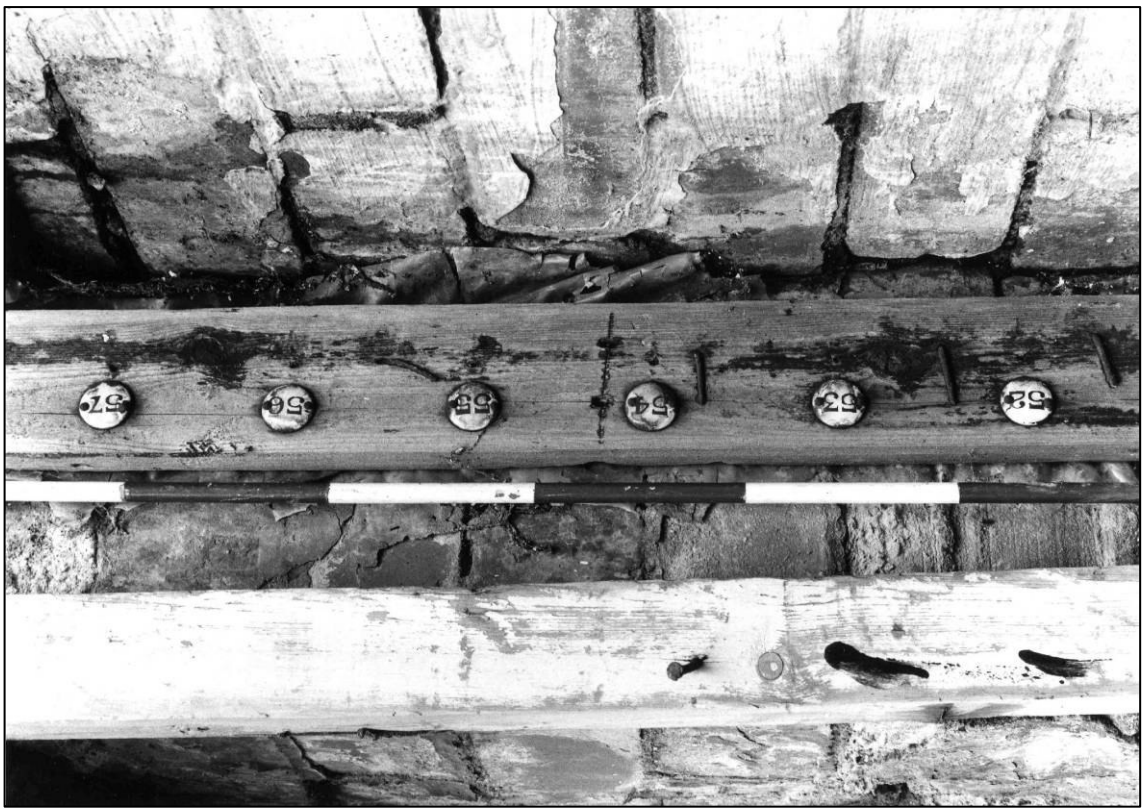


Plate 14: Building N1, interior west cell, former tallies to W wall, looking W (photo 2/4) (top to left).

Plate 15: Building N1, central cell, vent and shelf to north wall, looking NE (photo 2/5).

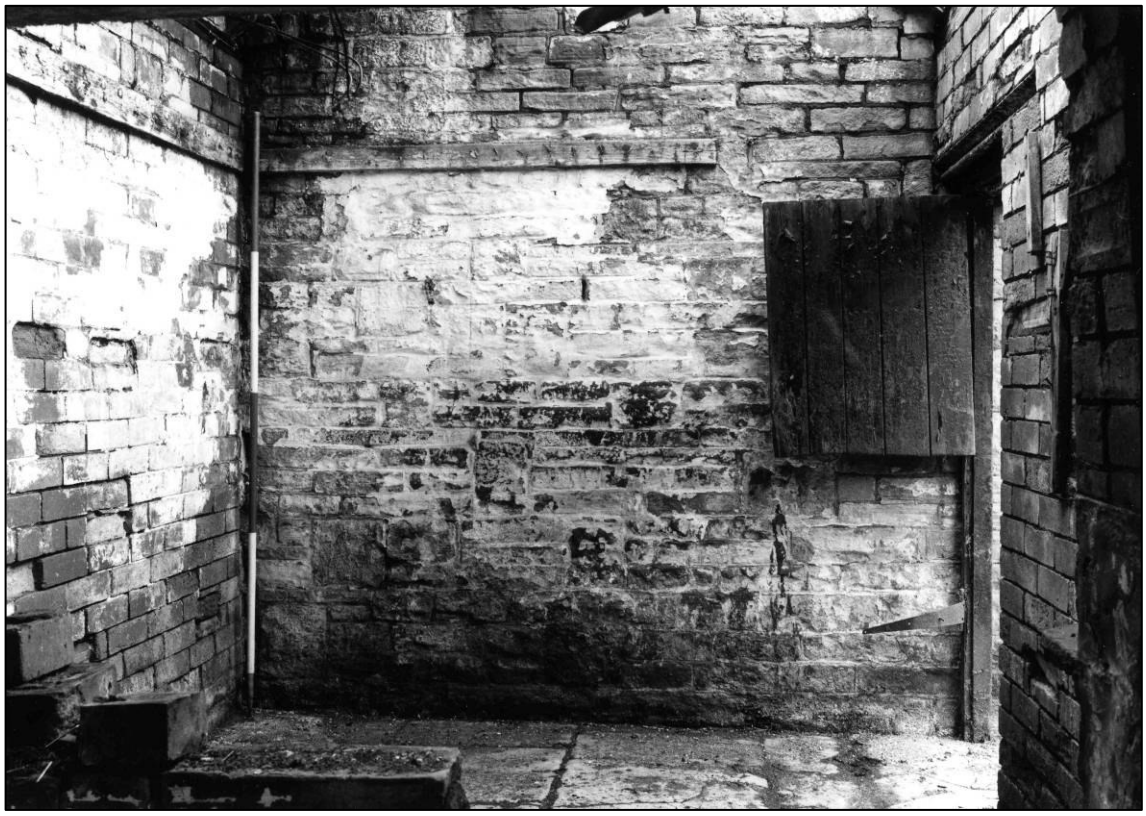


Plate 16: Building N1, central cell, west wall, looking W (photo 2/9).

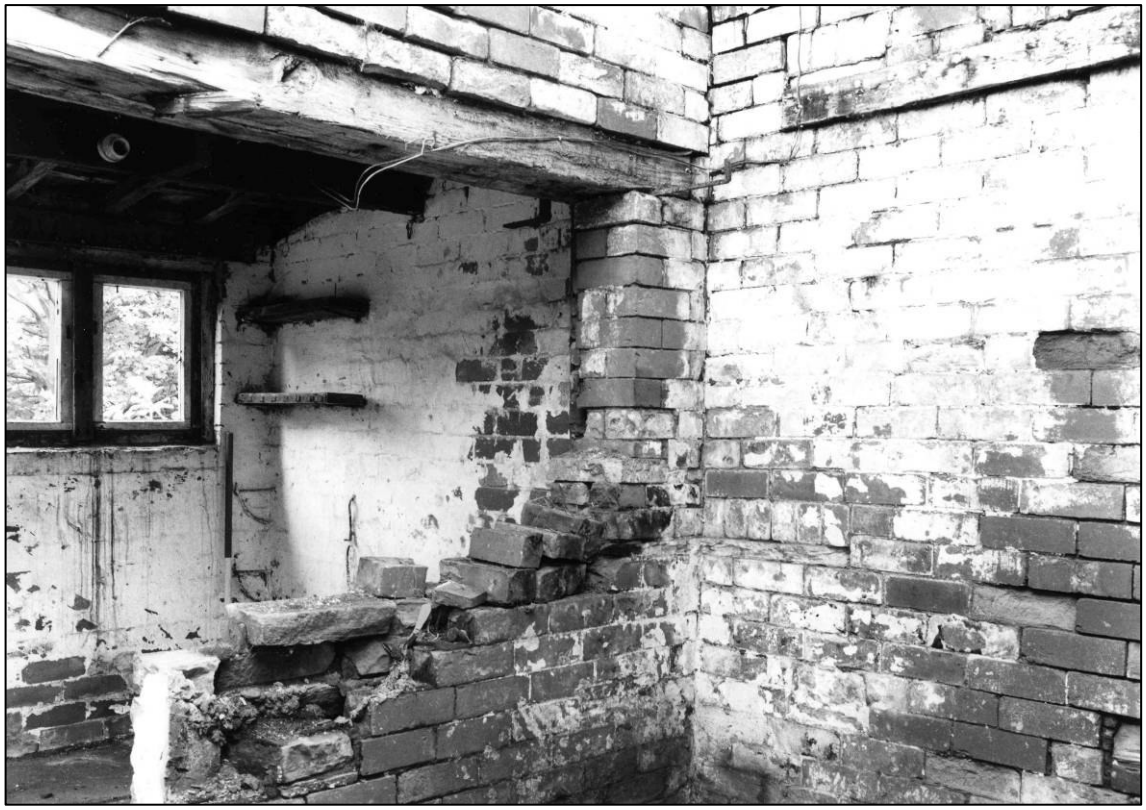


Plate 17: Building N1, interior central cell, looking SE (photo 2/11).

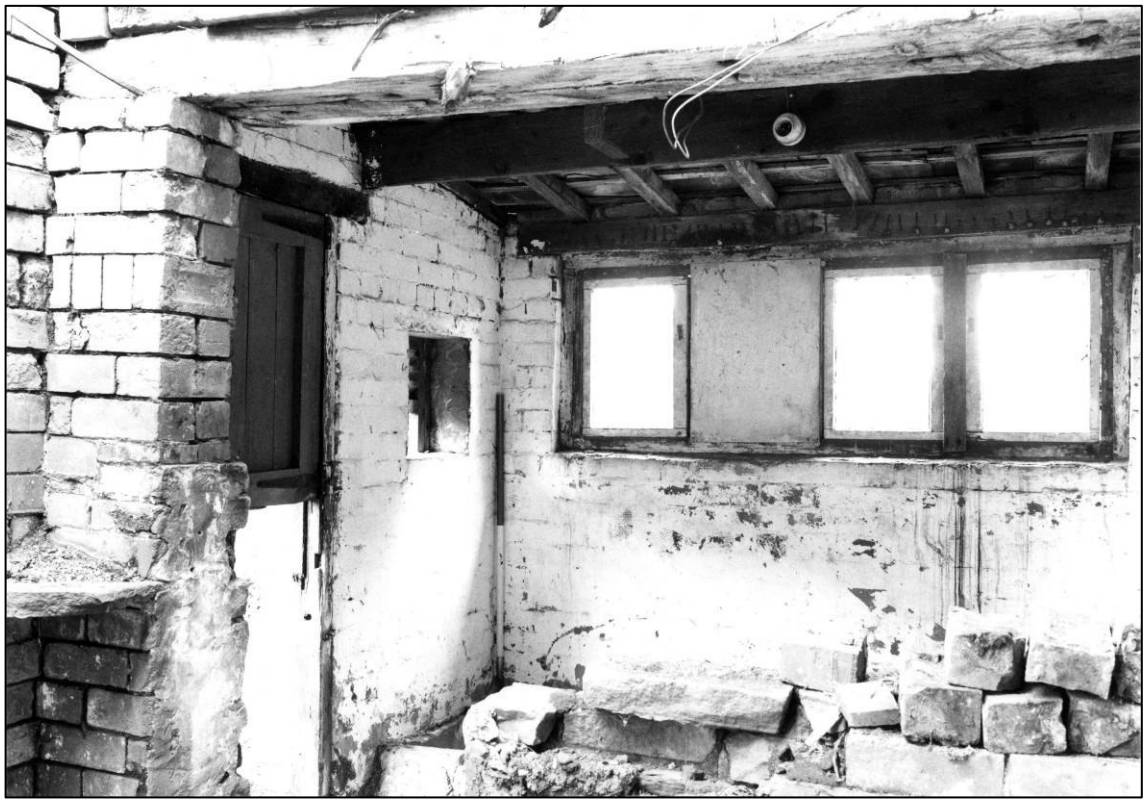


Plate 18: Building N1, interior east cell, looking NE (photo 2/10).

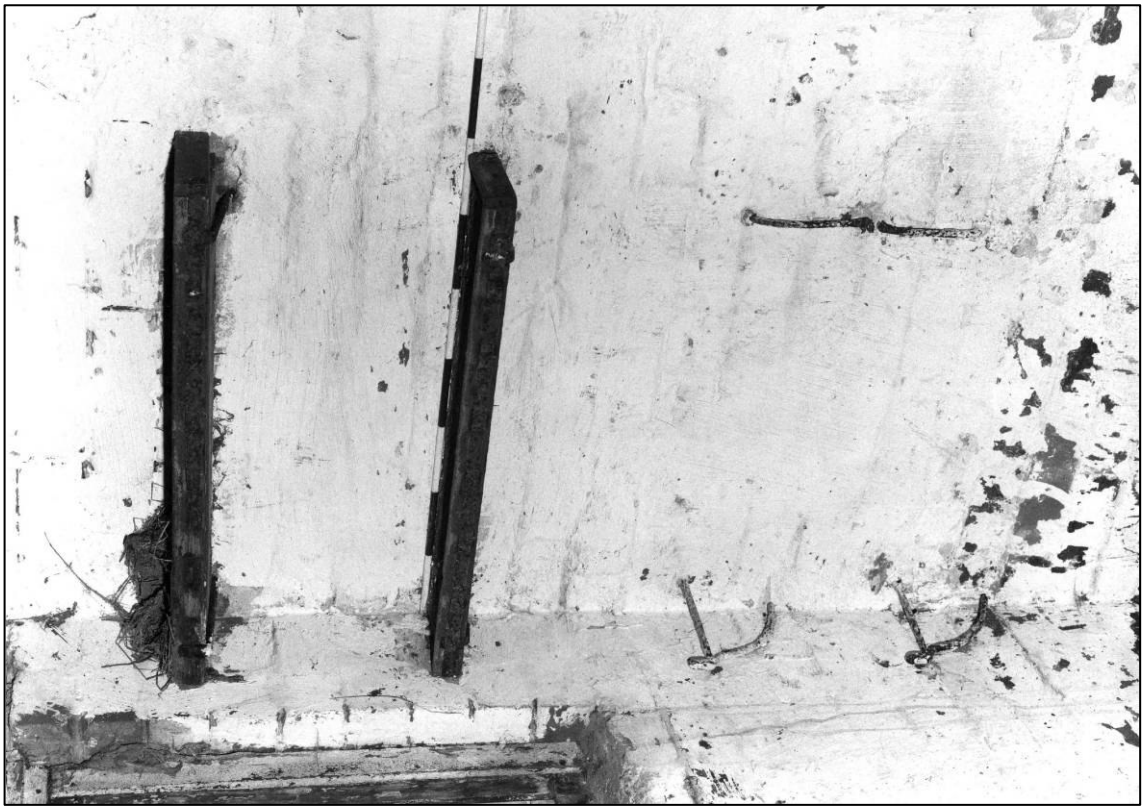


Plate 19: Building N1, interior east cell, fittings to S wall, looking SE (photo 2/7) (top to left).

Plate 20: Building N2, exterior, looking NE (photo 5/5).

Plate 21: Building N2, internal pit, looking E (photo 1/10) (top to left).

Plate 22: Building N2, north side of internal pit, looking N (photo 1/18).

Plate 23: Buildings N1 and N2, west gables, looking E (photo 5/2).

Plate 24: Building N2, west gable, looking E (photo 5/4).

Plate 25: Building N2, south elevation, looking N (photo 5/12).

Plate 26: Building N2, north elevation, looking SE (photo 5/10) (top to left).

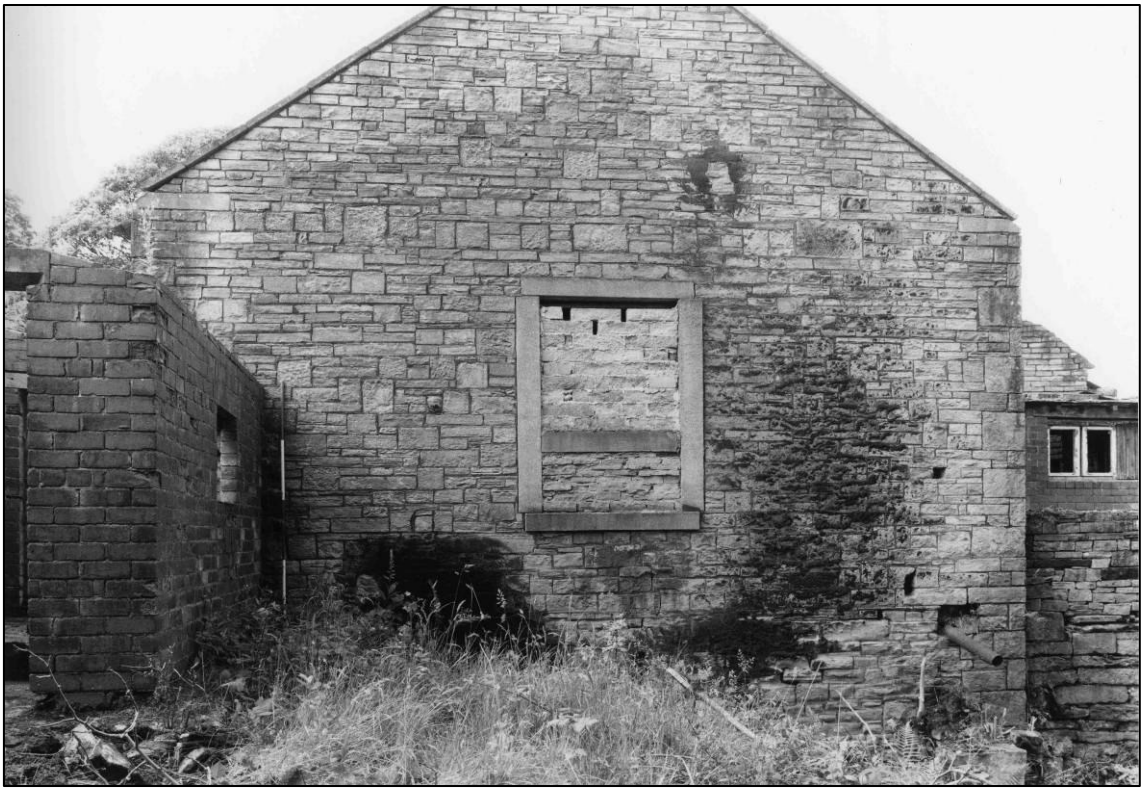


Plate 27: Building N2, east gable, looking W (photo 6/3).

Plate 28: Building N2, base of east gable, looking NW (photo 6/4) (top to left).

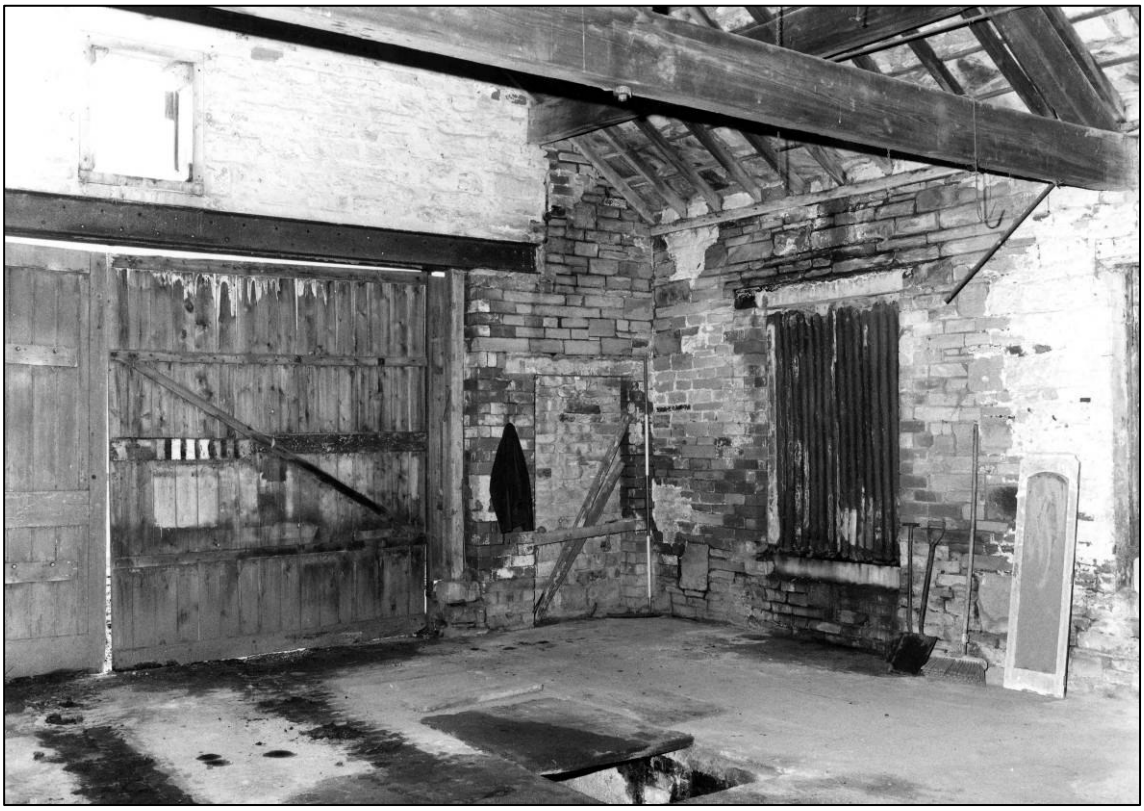


Plate 29: Building N2, interior, looking NW (photo 1/4).

Plate 30: Building N2, interior, looking NE (photo 1/2).

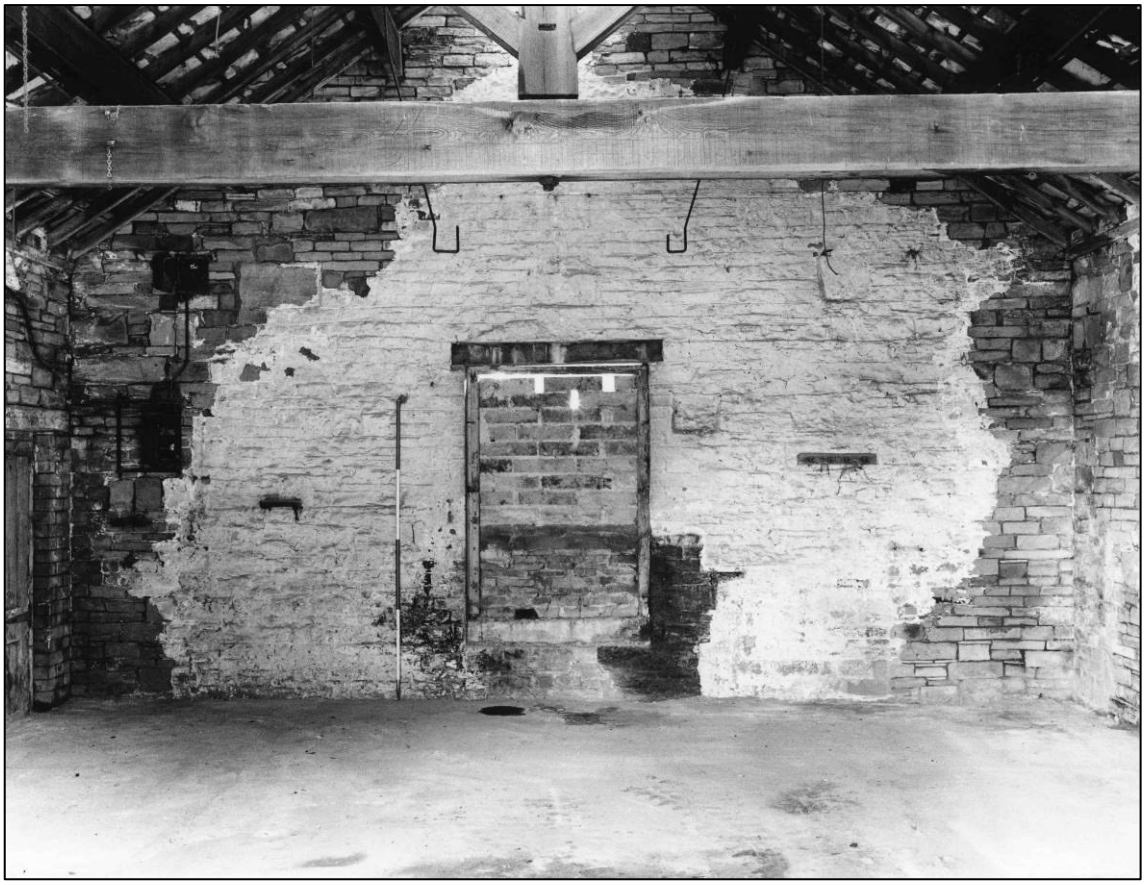


Plate 31: Building N2, interior east wall, looking E (photo 2/2).

Plate 32: Building N2, electrical fittings at north end of east wall, looking NE (photo 1/6) (top to left).

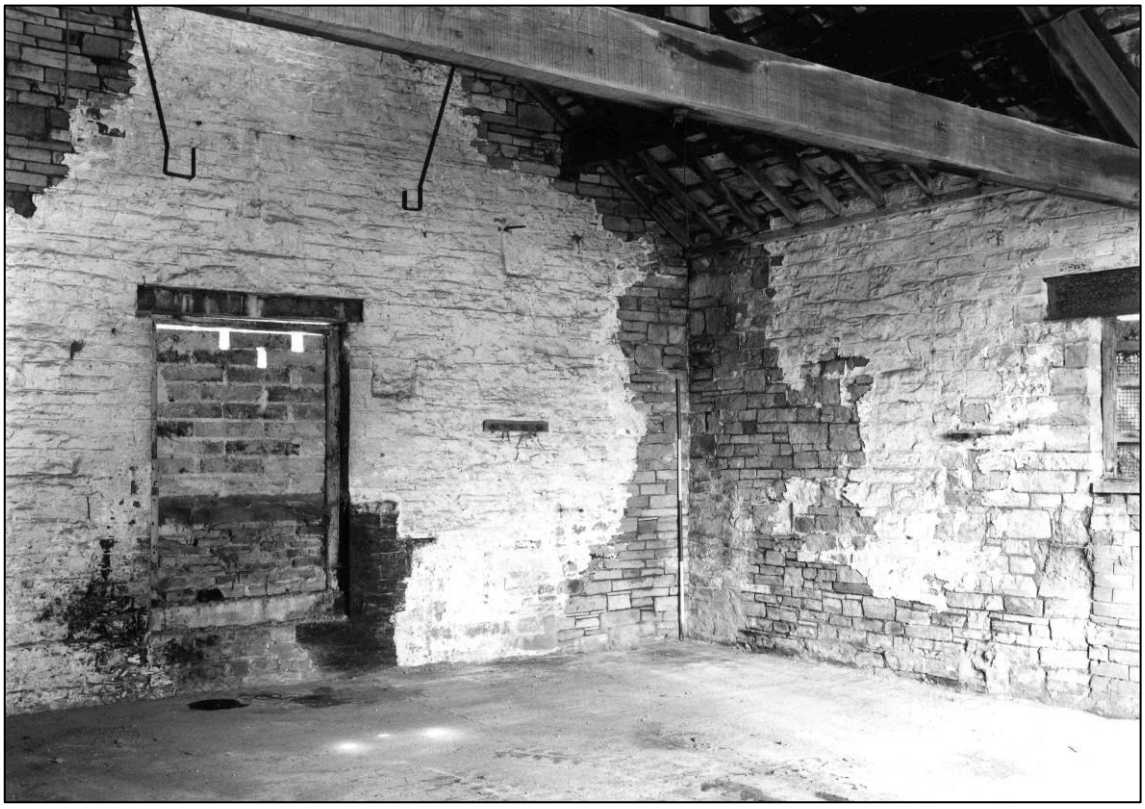


Plate 33: Building N2, interior, looking SE (photo 1/1).

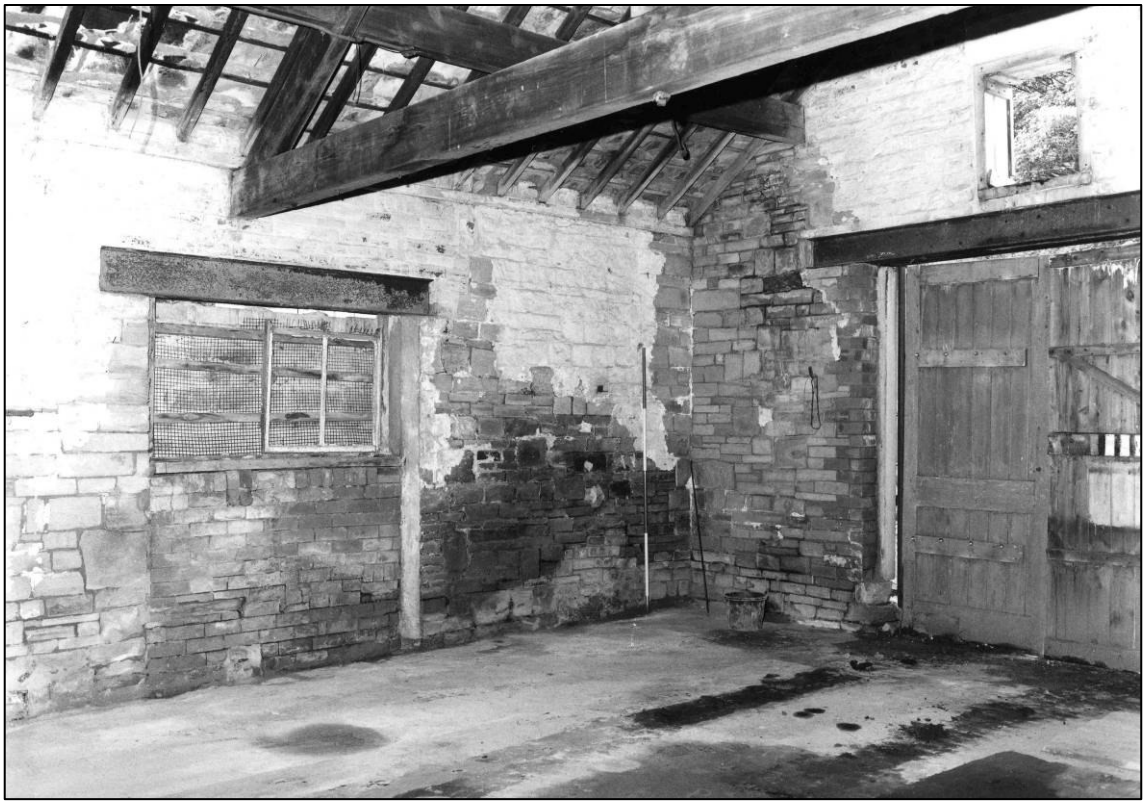


Plate 34: Building N2, interior, looking SW (photo 1/5).

Plate 35: Building N2, truss, looking NE (photo 1/11).

Plate 36: Building N2, guide pulley, looking SW (photo 1/9).

Plate 37: Building N2, brackets from truss, looking E (photo 1/7).

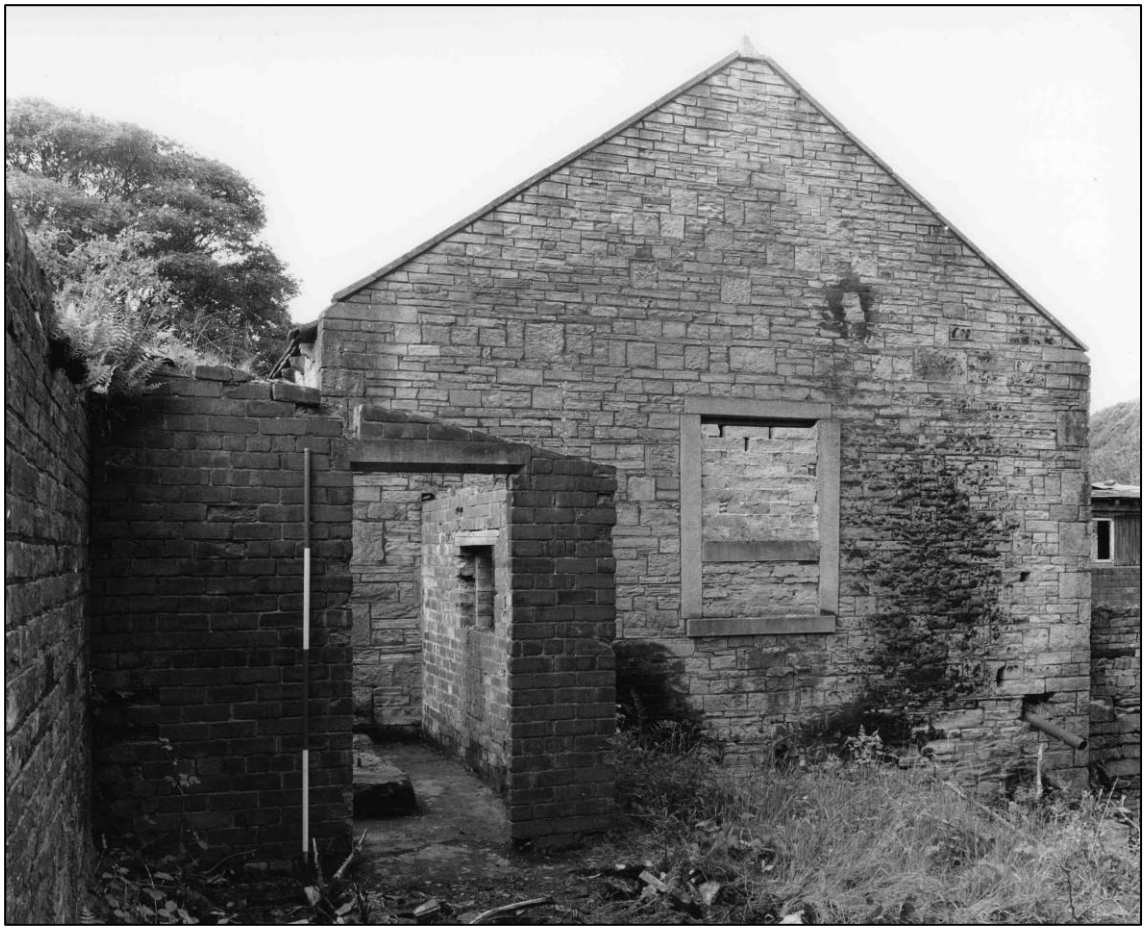


Plate 38: Buildings N2 and N3, looking NW (photo 6/1).

Plate 39: Building N3, interior, looking W (photo 3/11) (top to left).

Plate 40: Building N3, external west elevation, looking E (photo 5/15) (top to left).

Plate 41: Building N3, fan case and base, looking E (photo 3/13).

Plate 42: Building N3, fan case, looking SW (photo 3/12).

Plate 43: Building N3, fan case, looking SE (photo 3/15) (top to left).

Plate 44: Building N4, looking E (photo 5/6).

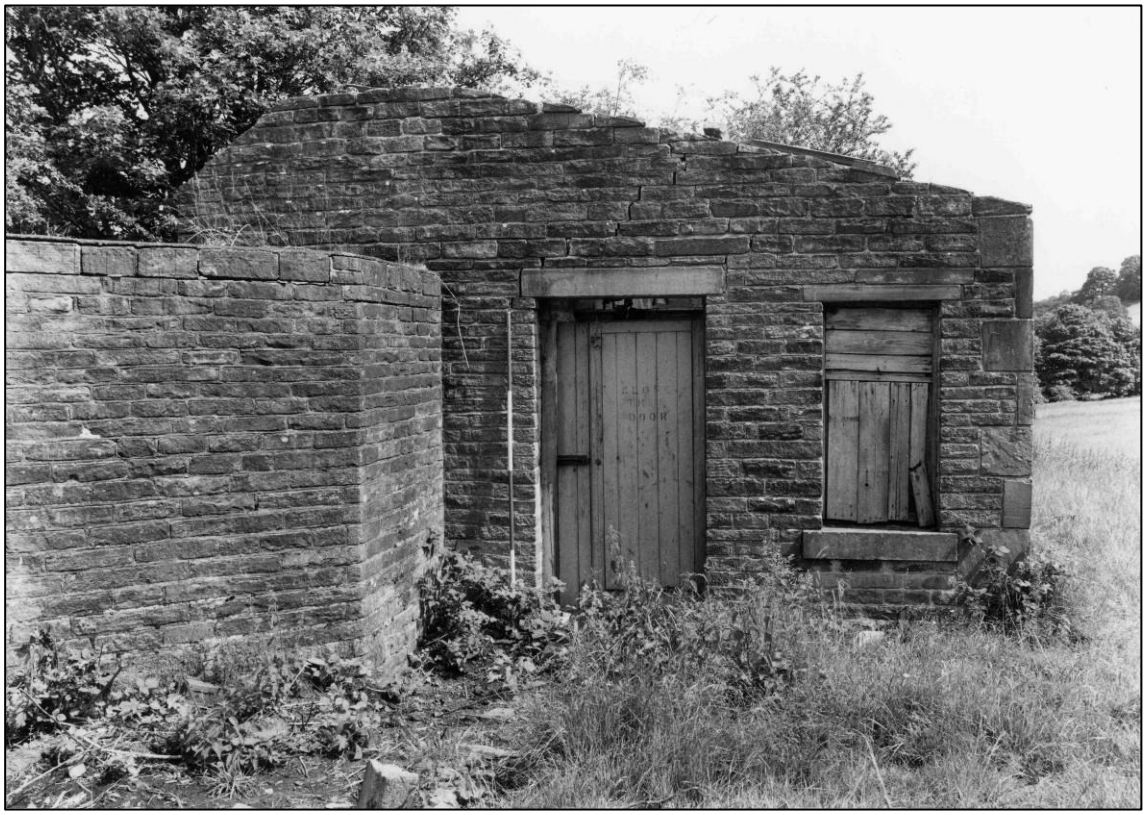


Plate 45: Building N4, external west elevation, looking E (photo 5/16).

Plate 46: Building N4, external south elevation, looking NE (photo 5/13).

Plate 47: Building N3, exterior, looking SW (photo 6/7).

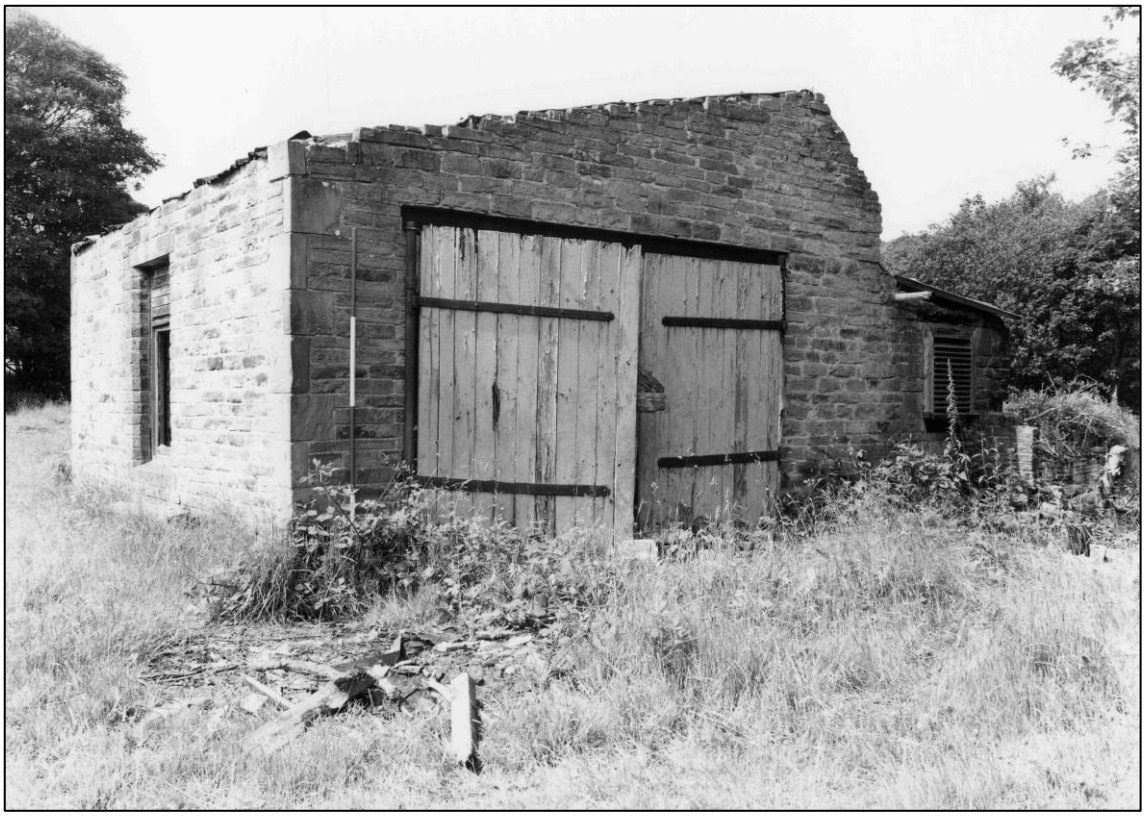


Plate 48: Building N4, external east elevation, looking NW (photo 5/18).

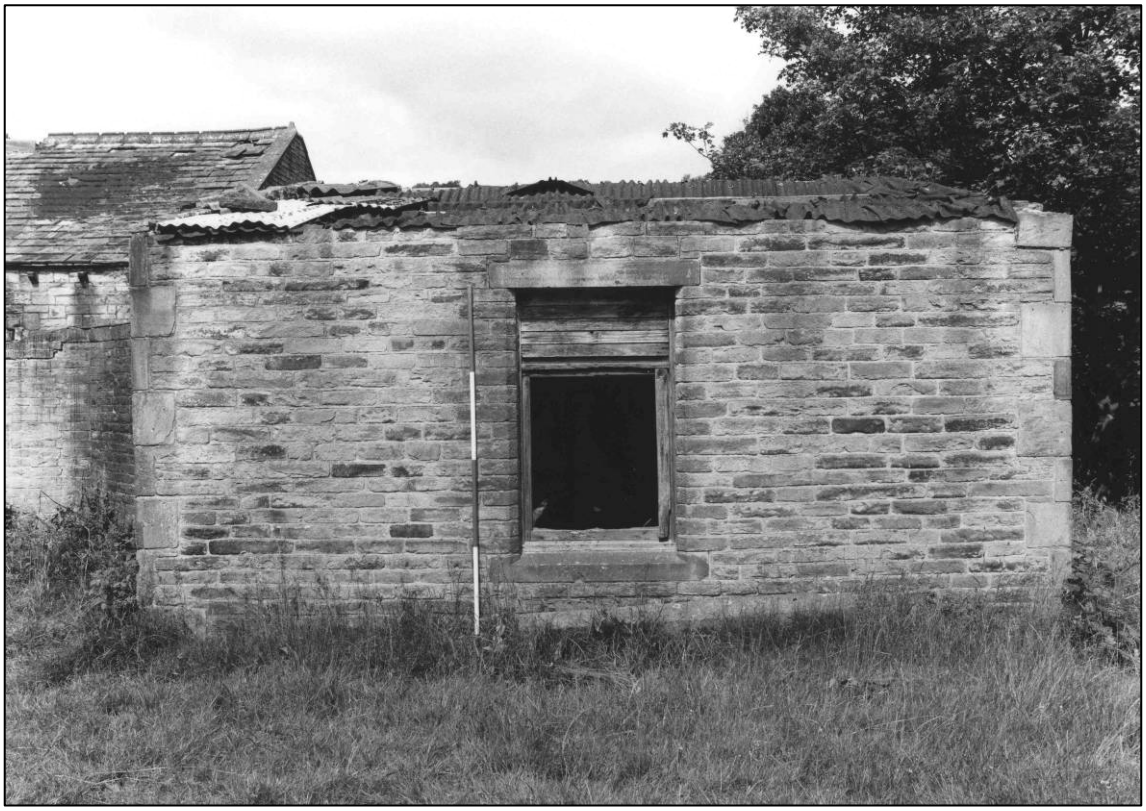


Plate 49: Building N4, external south elevation, looking N (photo 5/17).

Plate 50: Building N4, interior, looking SE (photo 3/17).

Plate 51: Building N4, interior, looking SW (photo 3/16).

Plate 52: Building N4, former fan and engine base, looking SW (photo 4/16).

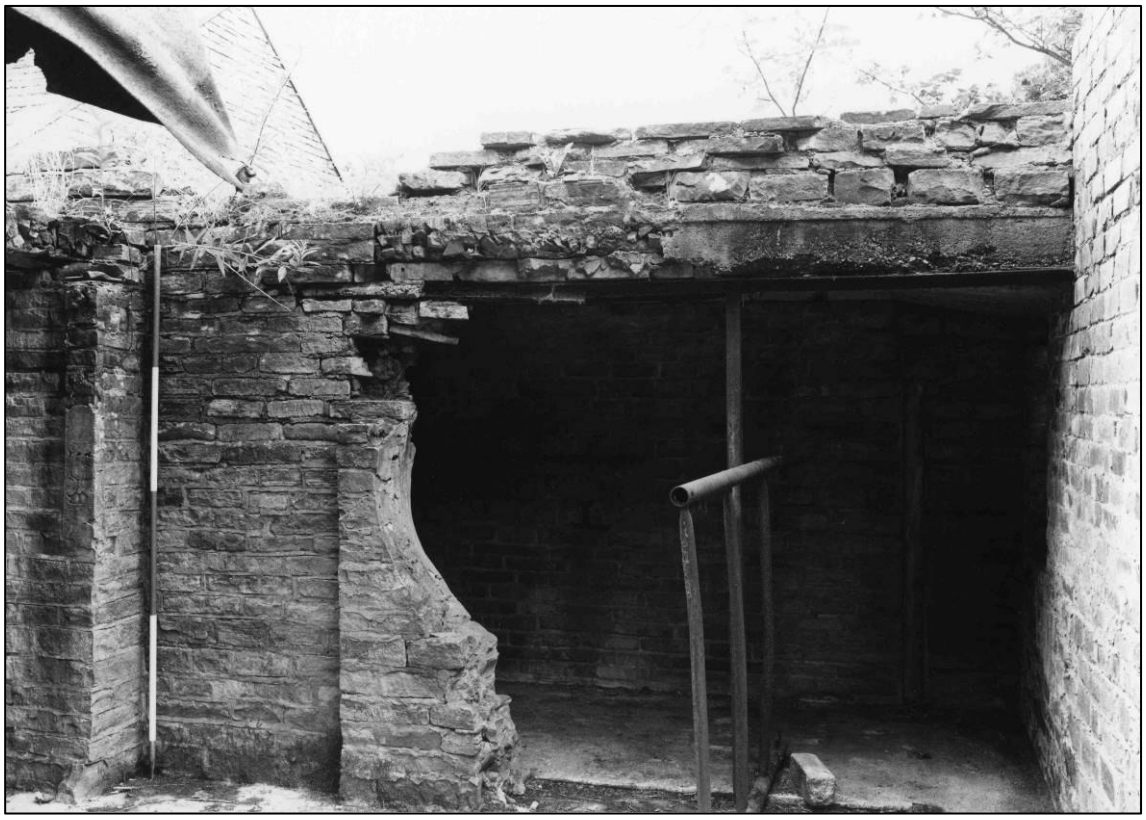


Plate 53: Building N4, fan position, looking N (photo 3/18).

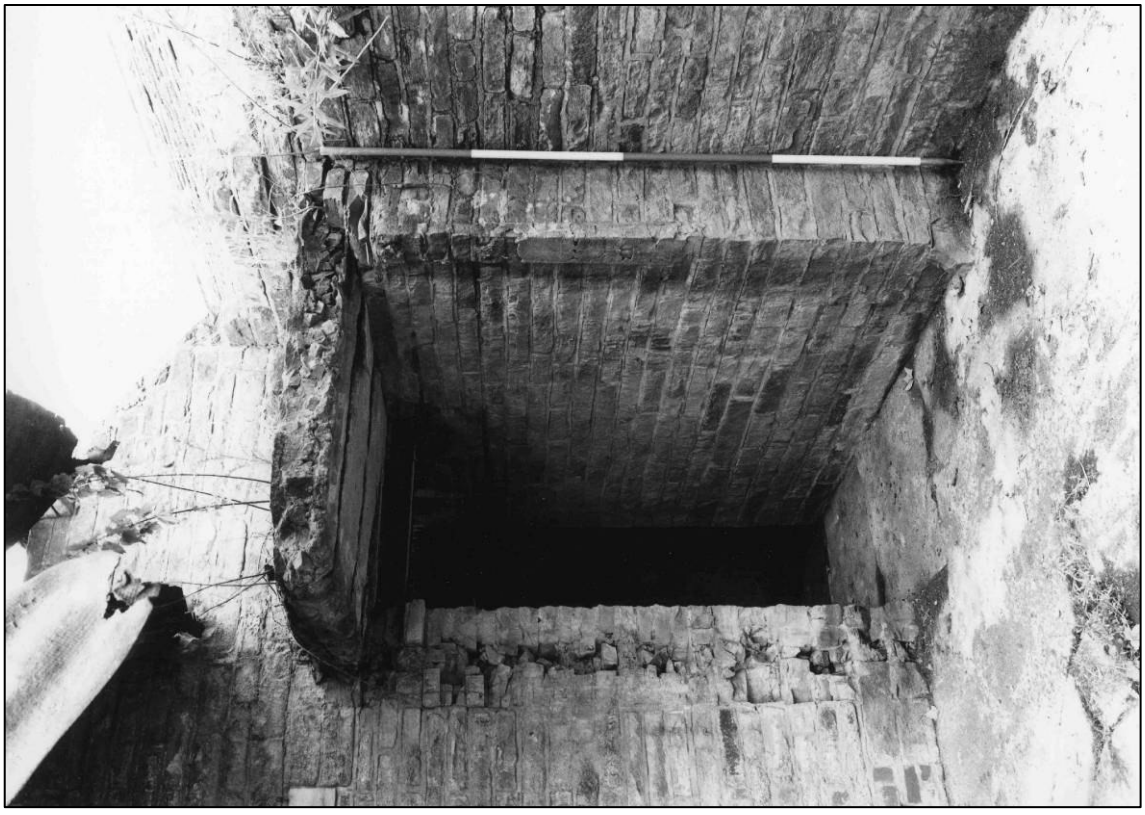


Plate 54: Building N4, former fan passage entrance, looking NW (photo 4/1) (top to left).

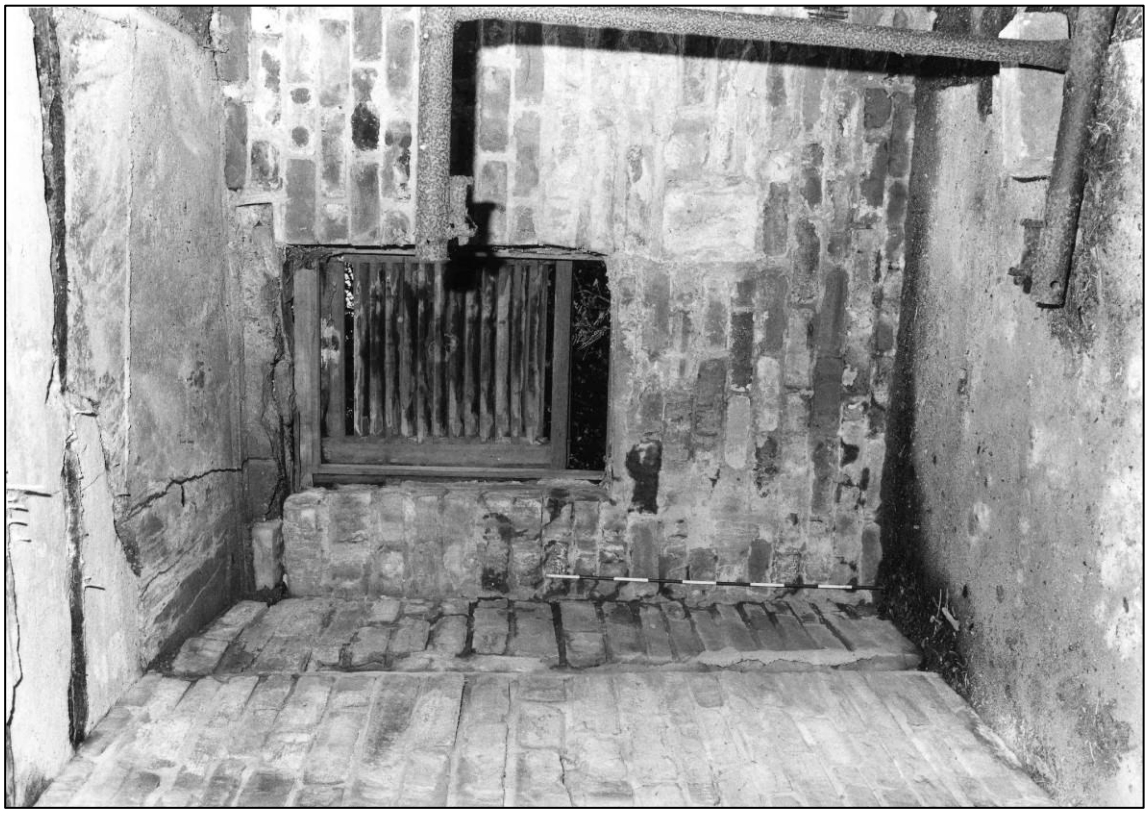


Plate 55: Building N4, interior of fan passage, east end, looking E (photo 4/15) (top to left)

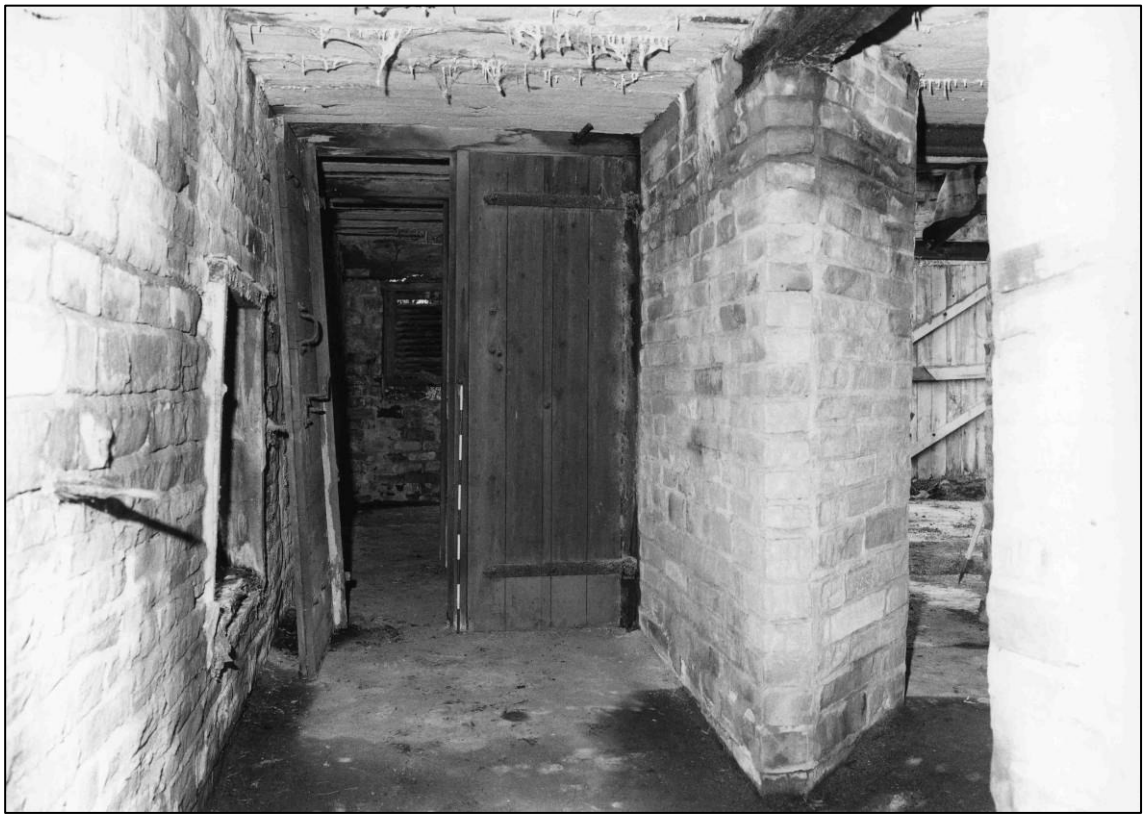


Plate 56: Building N4, interior to fan passage, looking E (photo 4/9).

Plate 57: Building N4, fan passage, east door face, looking W (photo 4/12) (top to left).

Plate 58: Building N4, fan passage, west door face, looking E (photo 4/11) (top to left).

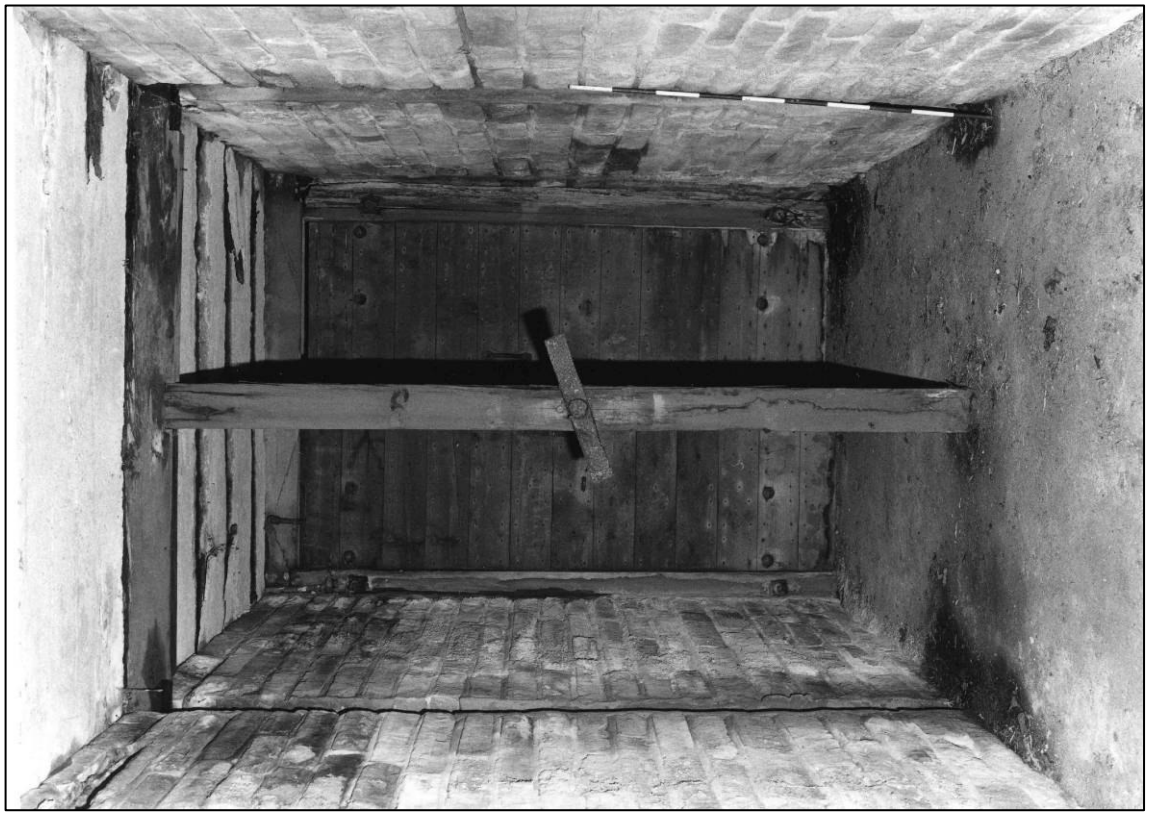


Plate 59: Building N4, interior of fan passage, looking W (photo 4/13).

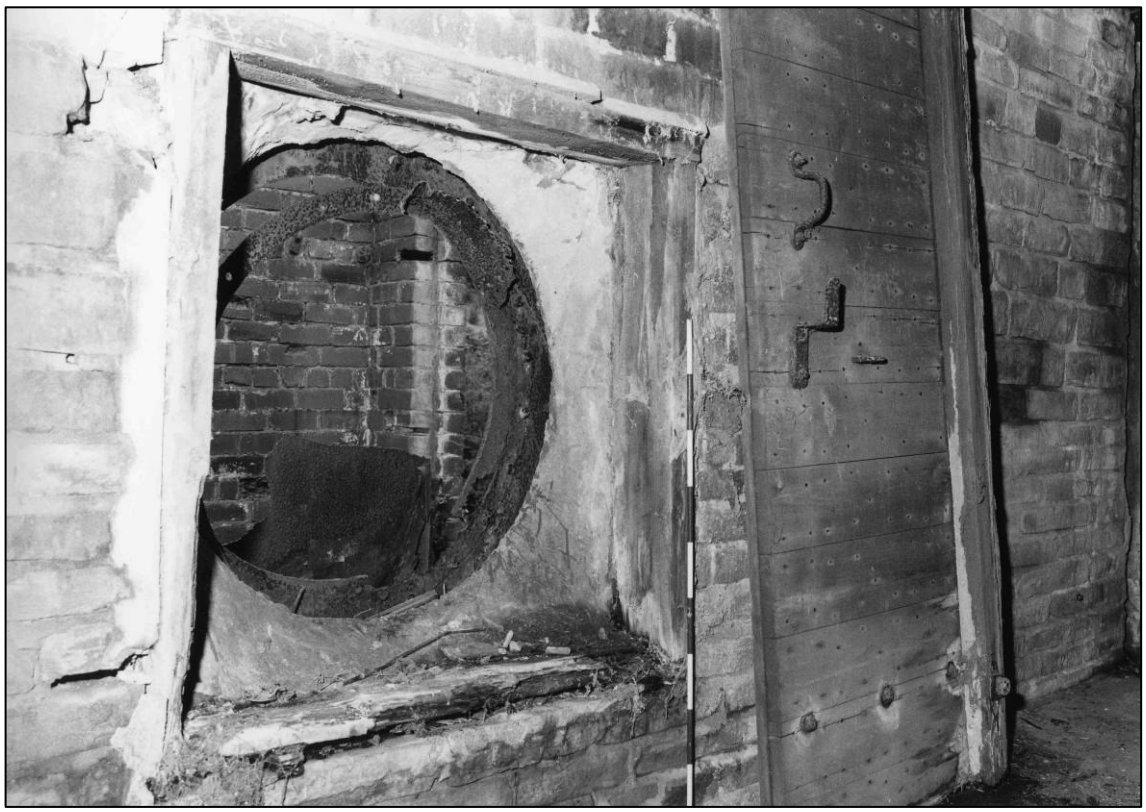


Plate 60: Building N4, opening in north wall of fan passage to Building N3, looking NE (photo 4/10).

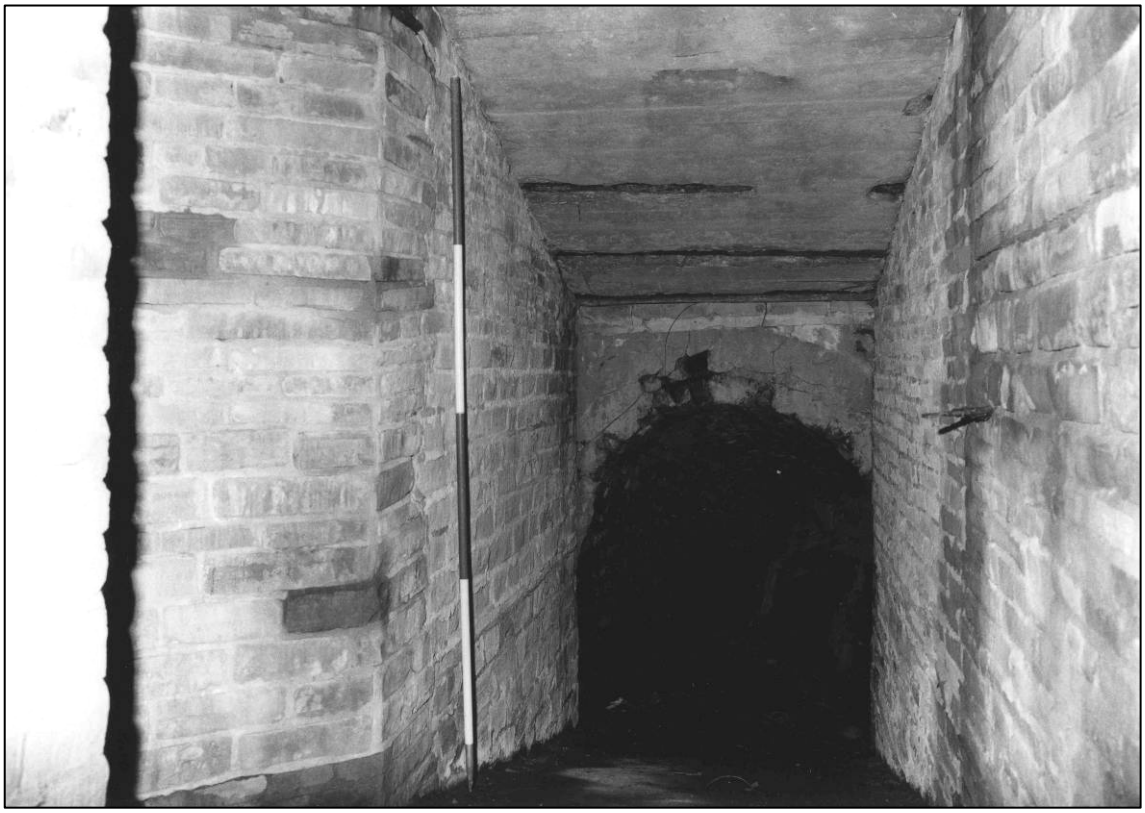


Plate 61: Building N4, fan passage to drift, looking W (photo 4/6).

Plate 62: Building N4, entrance to fan drift, looking W (photo 4/5) (top to left).

Plate 63: Building N4, interior of fan drift, looking W (photo 4/4).

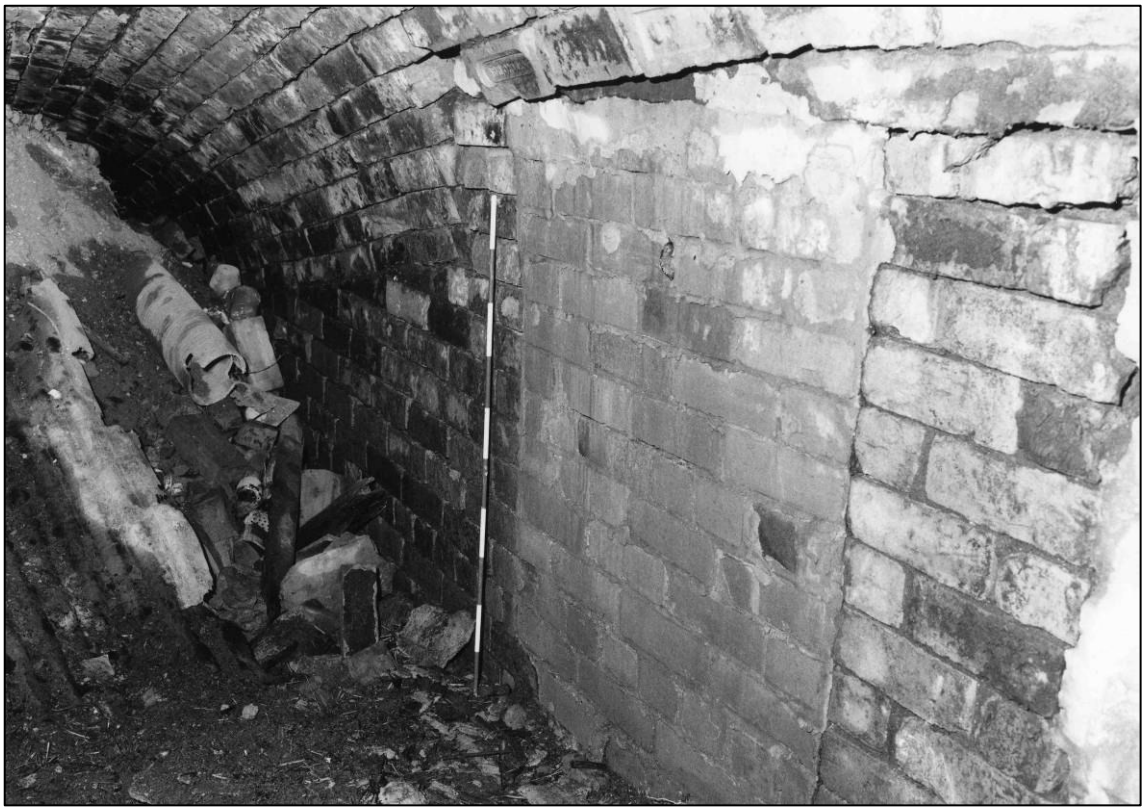


Plate 64: Building N4, blocked opening in north side of fan drift, looking NW (photo 4/2).

Plate 65: Mine offices (Buildings S1 to S3), looking S (photo 6/10).

Plate 66: Mine offices (Buildings S1, S2 and S6), looking SW (photo 6/17).

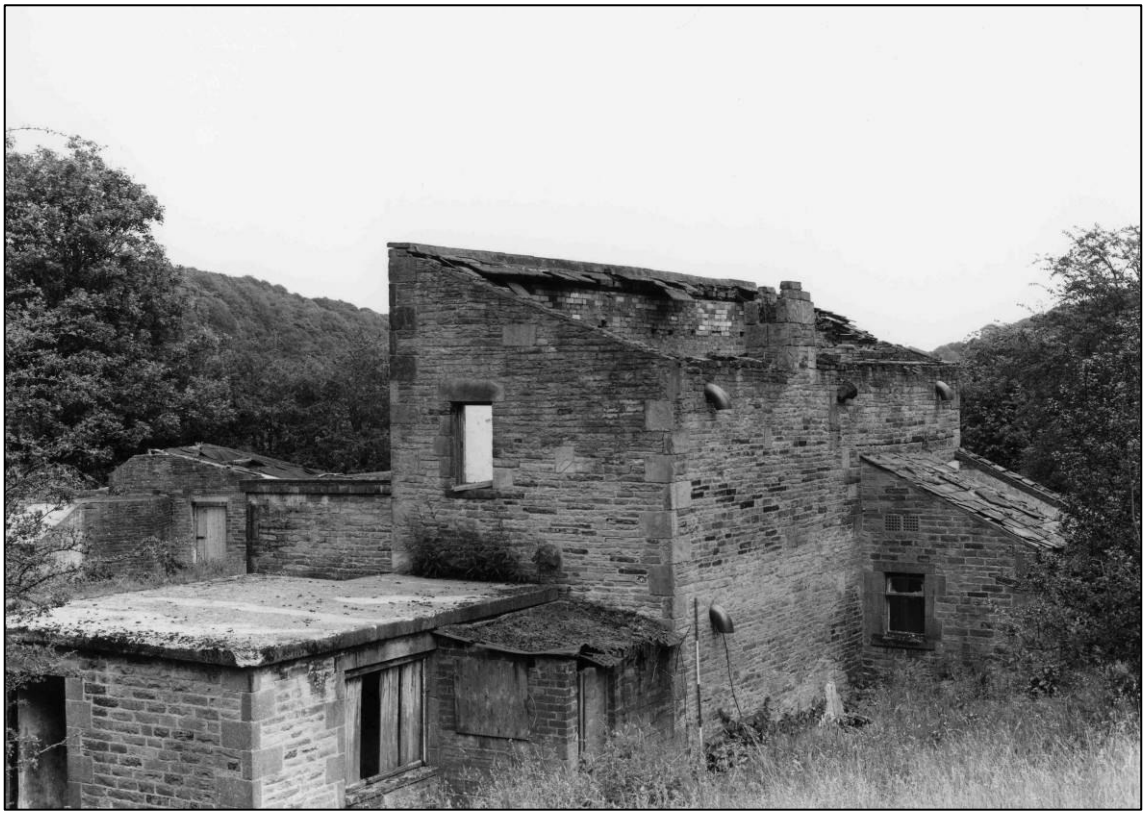


Plate 67: Mine offices (Buildings S1, S3, S4 and S5), looking NE (photo 6/12).

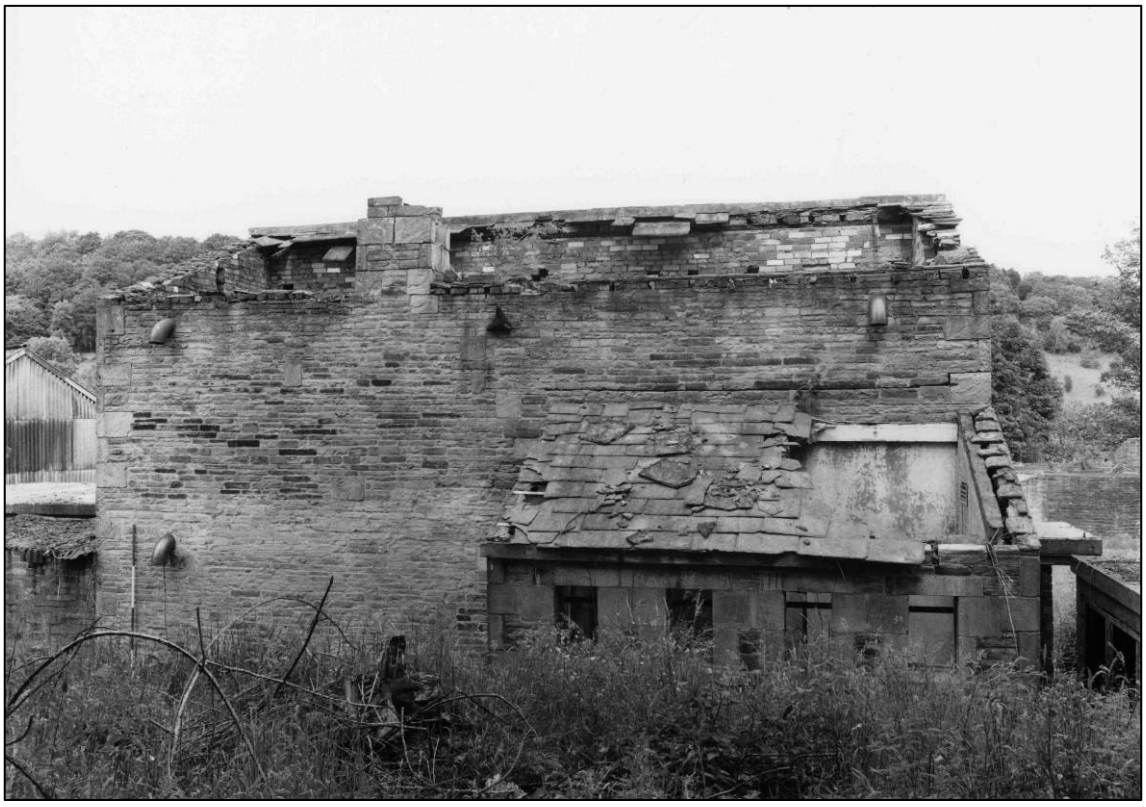


Plate 68: Mine offices (Buildings S1 and S5), looking N (photo 6/13).

Plate 69: Mine offices (Buildings S1 and S2), looking SW (photo 6/16).

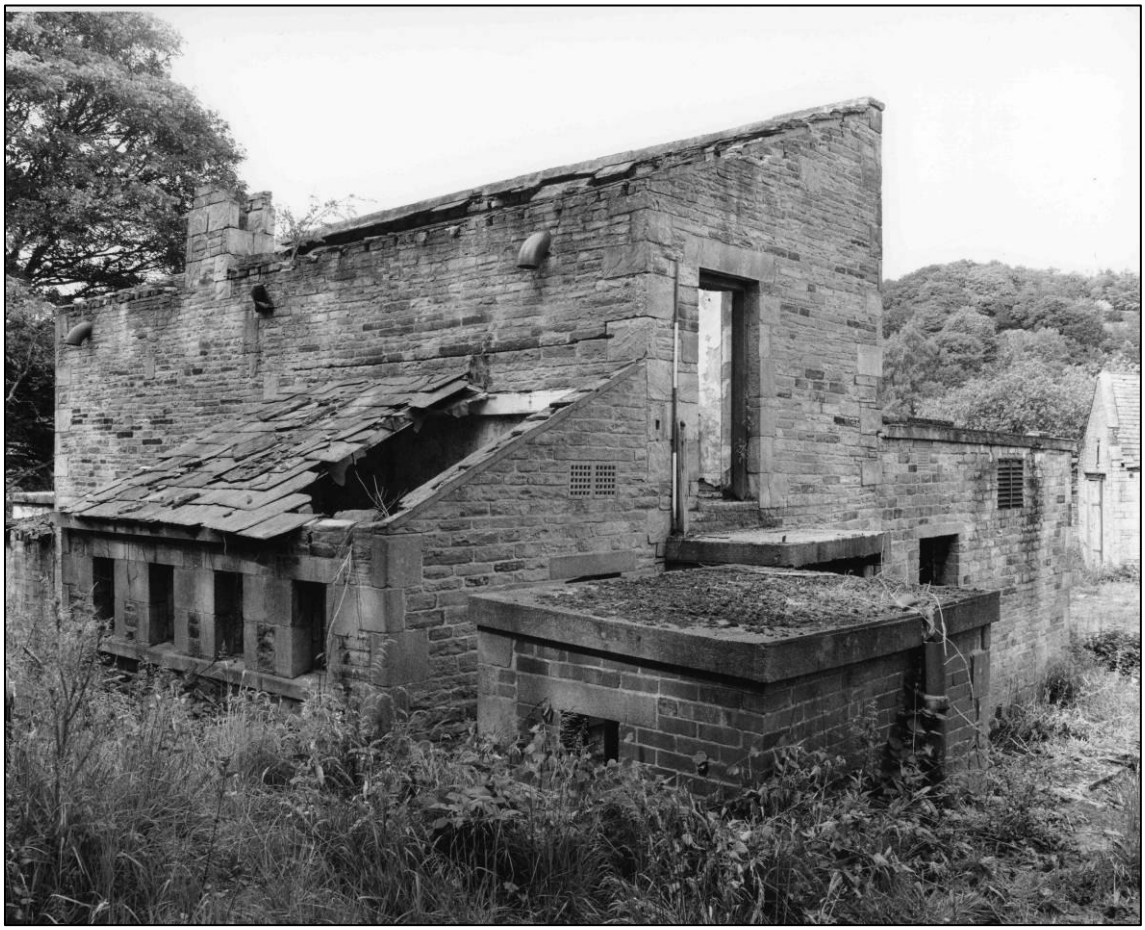


Plate 70: Mine offices (Buildings S1, S5 and S6), looking NW (photo 6/15).

Plate 71: Building S2, typical interior of one of north cells, looking SW (photo 3/5) (top to left).

Plate 72: Building S2, south wall of south cell, looking SW (photo 4/17) (top to left).

Plate 73: Building S3, interior, looking SW (photo 2/12) (top to left).

Plate 74: Building S3, interior, looking SE (photo 2/13).

Plate 75: Building S3, interior, looking NW (photo 2/15).

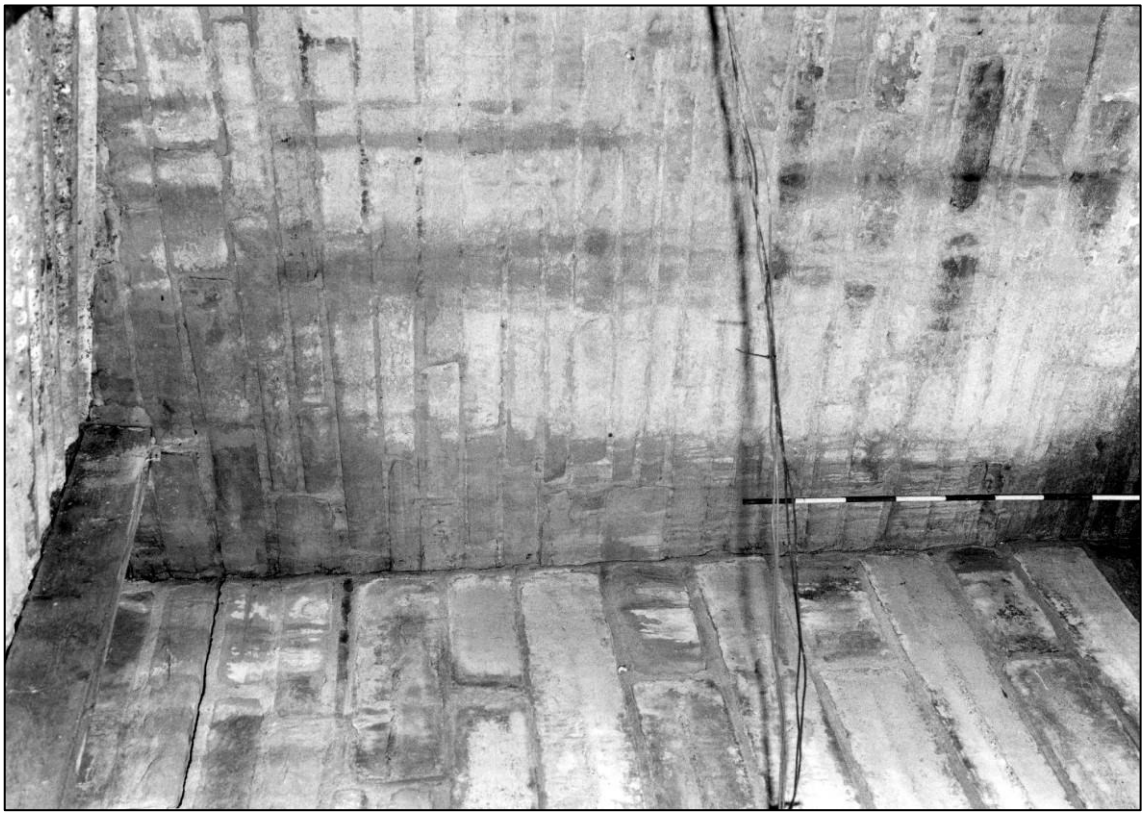


Plate 76: Building S4, interior, looking NE (photo 5/1) (top to left).

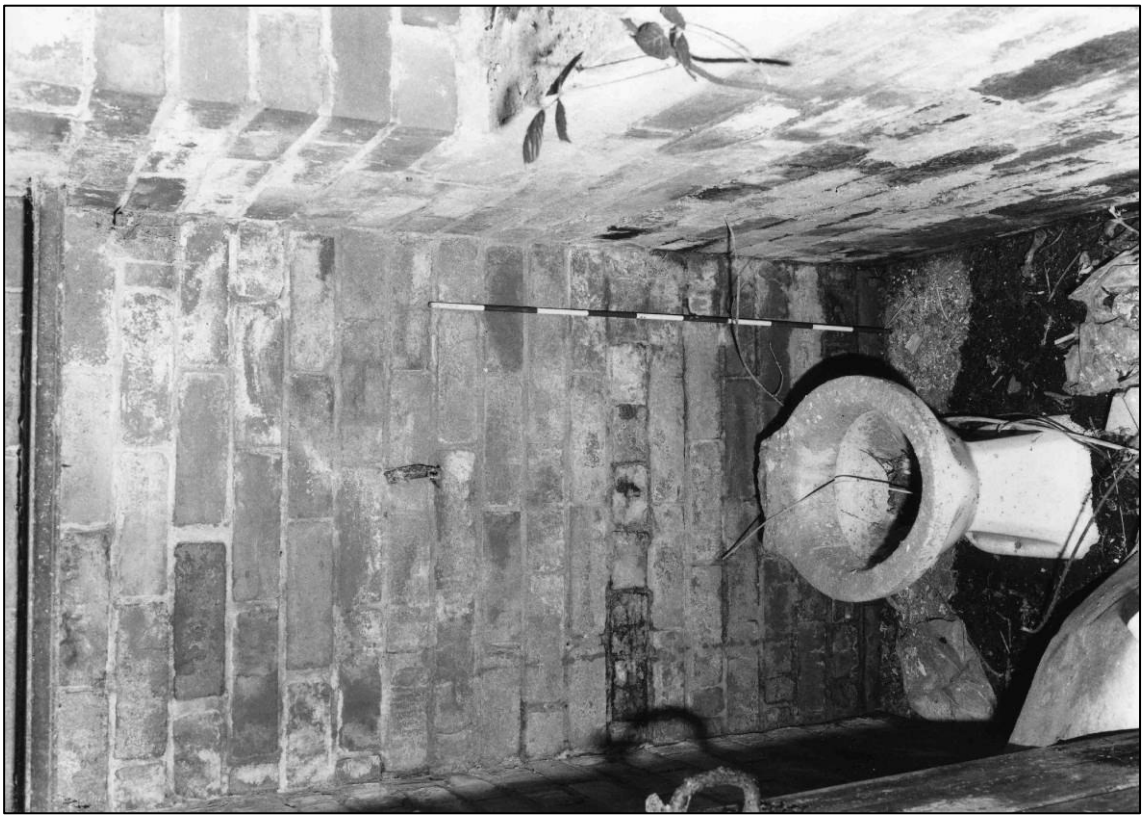


Plate 77: Building S6, interior, looking E (photo 4/18) (top to left).

Plate 78: Building S1, ground floor interior, looking NW (photo 2/17).

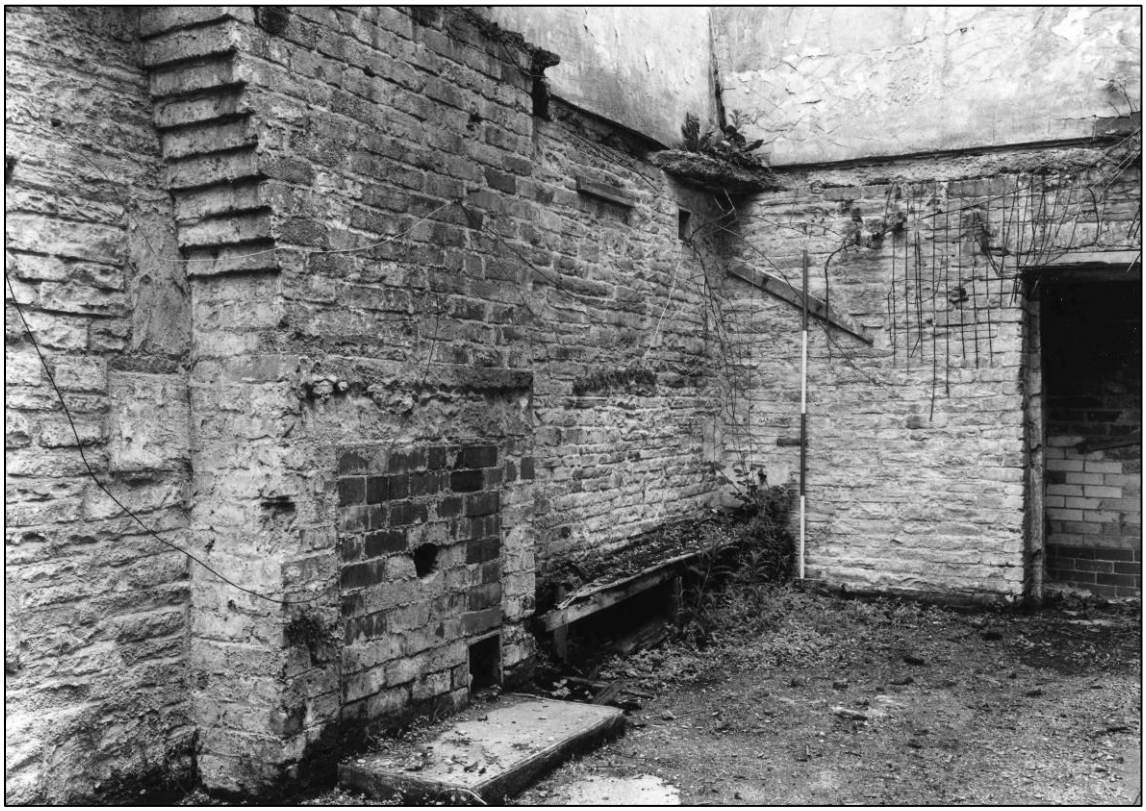


Plate 79: Building S1, ground floor interior, looking SW (photo 2/18).

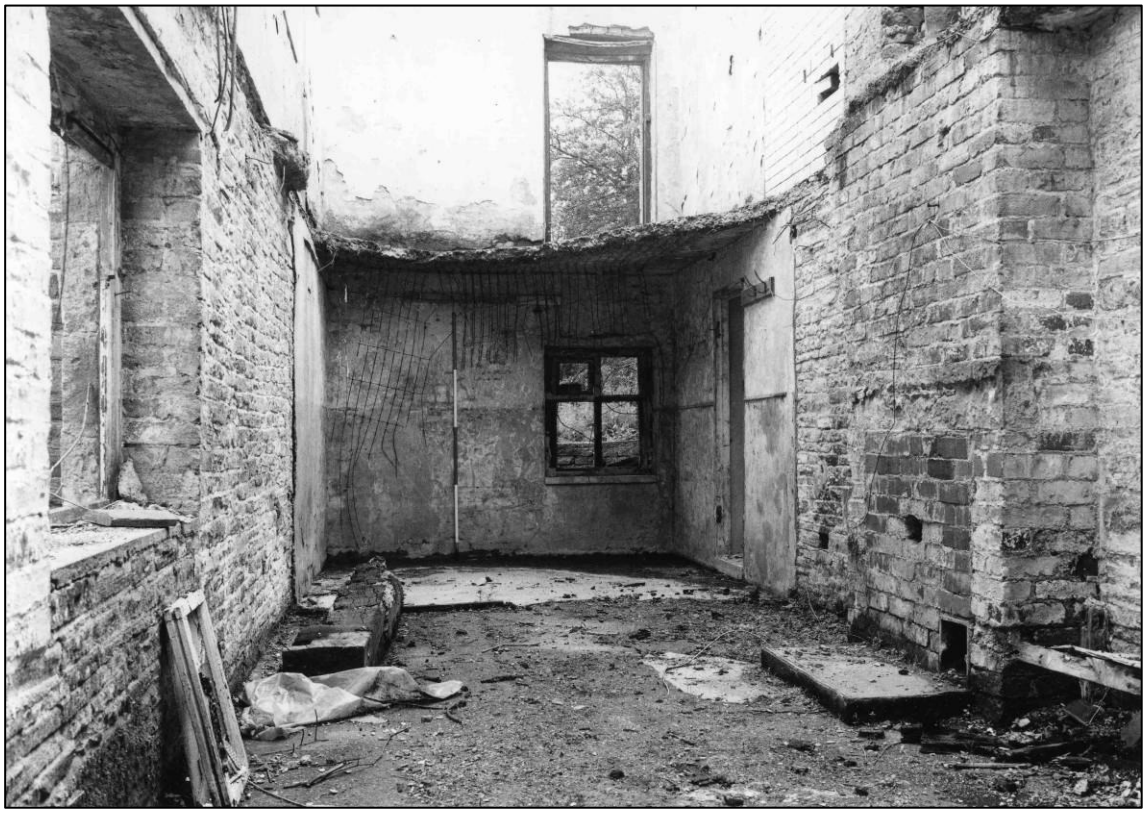


Plate 80: Building S1, ground floor interior, looking E (photo 2/16).

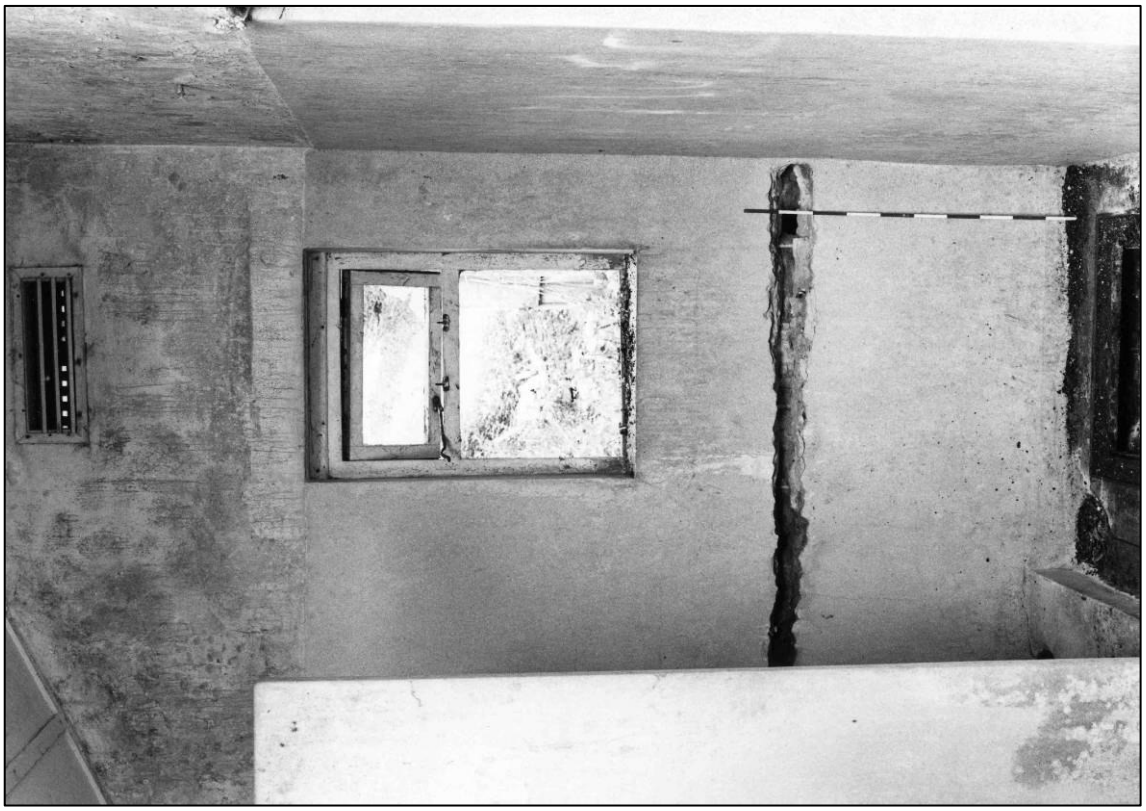


Plate 81: Building S5, showers, looking W (photo 3/10) (top to left).

Plate 82: Building S5, typical appearance of showers, looking SW (photo 3/9) (top to left).

Plate 83: Building S1, first floor interior, looking E (photo 3/6).

Plate 84: Building S1, first floor fireplace, looking S (photo 3/7).

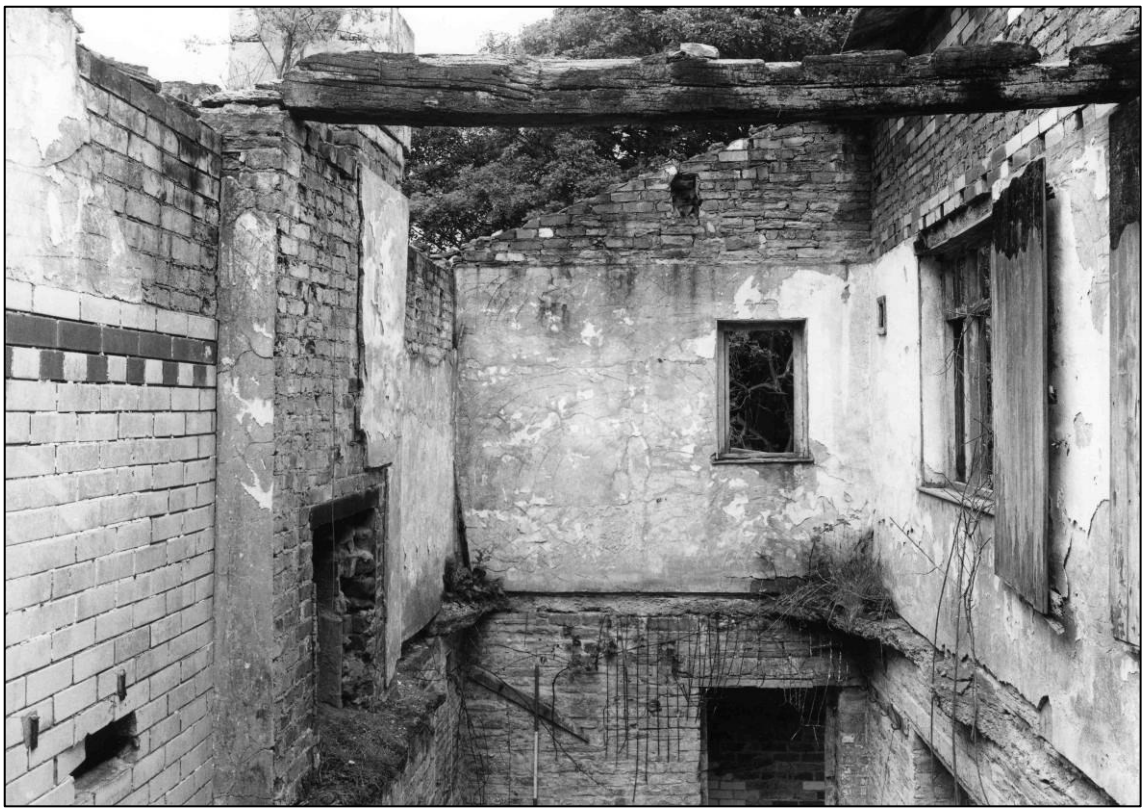


Plate 85: Building S1, first floor interior, looking W (photo 3/3).

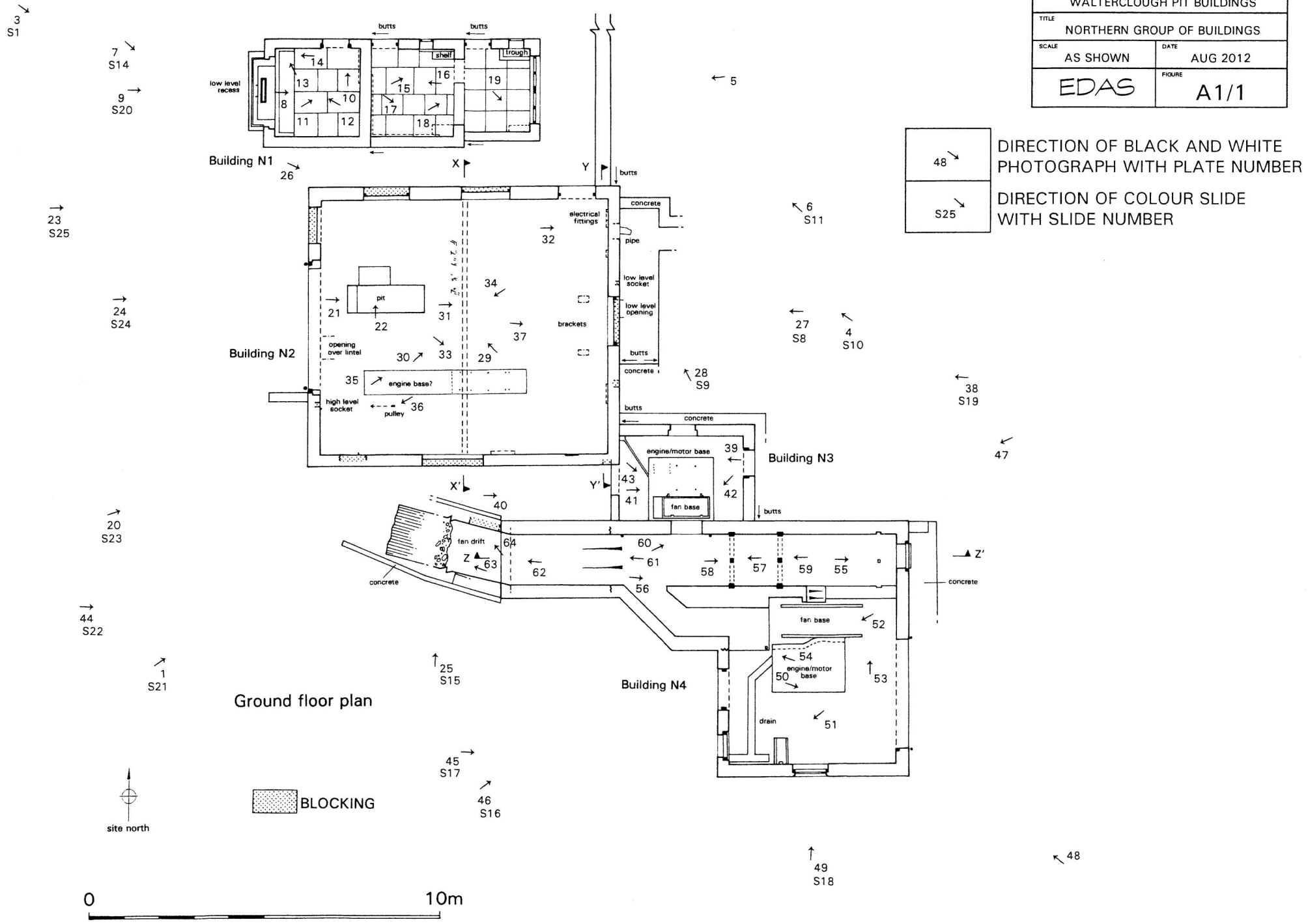
Plate 86: Building S1, first floor interior, looking NW (photo 3/1).

Plate 87: Building S1, first floor interior, north wall showing vent, looking N (photo 3/4).

PHOTOGRAPHIC REGISTER: COLOUR SLIDES

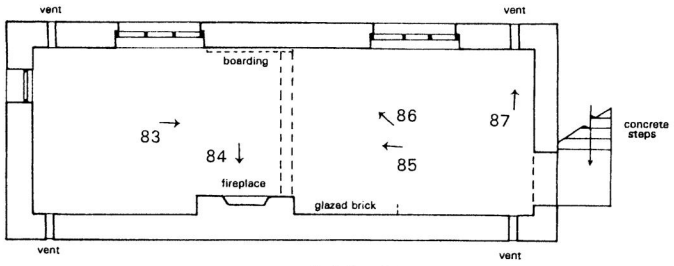
Film 7: 35mm colour slides taken 25th June 2012

Slide	*Subject*	*Film*	*Frame*	*Scale*
S1	Northern and southern groups of buildings, looking SE	7	1	-
S2	Mine offices (Buildings S1, S3, S4 and S5), looking NE	7	2	2m
S3	Mine offices (Buildings S1 and S5), looking N	7	3	2m
S4	Mine offices (Buildings S1 and S5), looking N	7	4	2m
S5	Mine offices (Buildings S1, S5 and S6), looking NW	7	5	2m
S6	Mine offices (Buildings S1 and S2), external E gables, looking SW	7	6	2m
S7	Mine offices (Buildings S1, S2 and S6), looking SW	7	7	2m
S8	Building N2, E gable, looking W	7	8	2m
S9	Building N2, base of E gable, looking NW	7	9	2m
S10	Building N2, revetment wall to N, looking NW	7	10	2m
S11	Building N2, revetment wall to N and base, looking NW	7	11	2m
S12	Mine offices (Buildings S1 to S3), looking S	7	12	2m
S13	Mine offices (Buildings S1, S5 and S6), looking SE	7	13	2m
S14	Building N1, looking SE	7	14	2m
S15	Building N2, S elevation, looking N	7	15	2m
S16	Building N4, external S elevation, looking NE	7	16	2m
S17	Building N4, external W elevation, looking E	7	17	2m
S18	Building N4, external S elevation, looking N	7	18	2m
S19	Buildings N2 and N3, external E gables, looking NW	7	19	2m
S20	Building N1, west external gable, looking E	7	20	2m
S21	Northern group of buildings, looking NE	7	21	2m
S22	Building N4, looking E	7	22	2m
S23	Building N2, looking NE	7	23	2m
S24	Building N2, west external gable, looking E	7	24	2m
S25	Buildings N1 and N2, west external gables, looking E	7	25	2m


PROJECT
WALTERCLOUGH PIT BUILDINGS
TITLE
NORTHERN GROUP OF BUILDINGS
SCALE
AS SHOWN
DATE
AUG 2012
EDAS
FIGURE
A1/1
48
DIRECTION OF BLACK AND WHITE PHOTOGRAPH WITH PLATE NUMBER
S25
DIRECTION OF COLOUR SLIDE WITH SLIDE NUMBER
Building N1
Building N2
Building N3
Building N4
butts
shelf
trough
low level recess
concrete
electrical fittings
pipe
low level socket
low level opening
brackets
pit
opening over lintel
engine base?
high level socket
pulley
engine/motor base
fan base
fan drift
drain
X
X'
Y
Y'
Z
Z'
Ground floor plan
BLOCKING
site north
0
10m

48 ↘ DIRECTION OF BLACK AND WHITE PHOTOGRAPH WITH PLATE NUMBER

S14 ↘ DIRECTION OF COLOUR SLIDE WITH SLIDE NUMBER



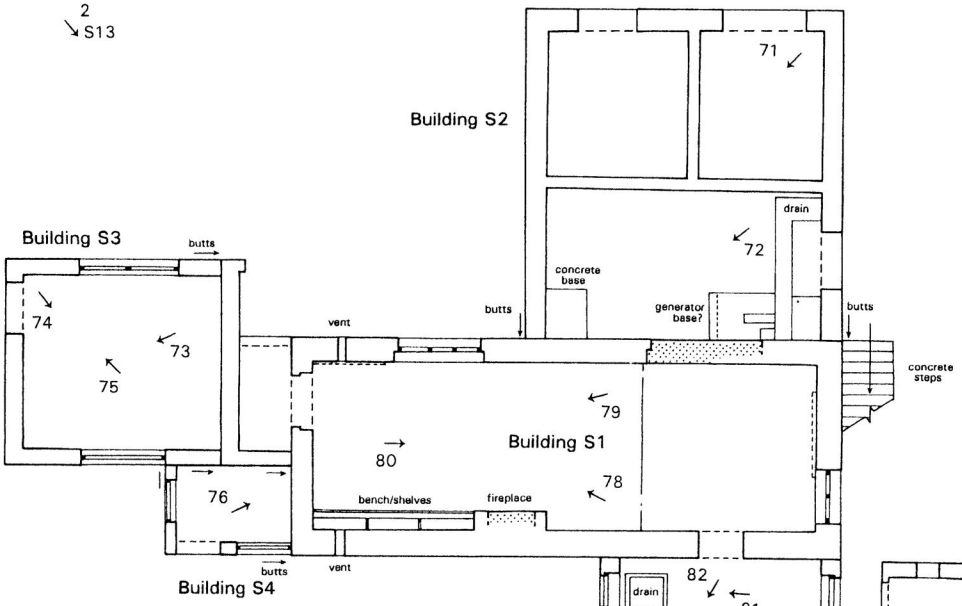
Building S1

First floor plan

↓ 65 S12

↙ 66 S7

2 ↘ S13



↙ 69 S6

↗ 67 S2

Ground floor plan

↑ 68 S3 S4

↖ 70 S5

BLOCKING

site north

0 10m

PROJECT: WALTERCLOUGH PIT BUILDINGS	
TITLE: SOUTHERN GROUP OF BUILDINGS	
SCALE: AS SHOWN	DATE: AUG 2012
EDAS	FIGURE: A1/2

APPENDIX 2
WYAAS SPECIFICATION

Specification For Photographic and Drawn Building Recording
Walterclough Pit Buildings Southwram
(412557 424184)

Specification prepared at the request of the Ed Dennison of EDArchServices Ltd. on behalf of Calderdale Council (Planning Permission 09/01101/FUL)

1 Summary

1.1 A building record (drawn and photographic survey) is required to identify and document items of archaeological and architectural interest prior to the conversion of this 19th and 20th century coal and clay mine to domestic dwellings (planning consent 09/01101/FUL). This specification for the necessary work has been prepared by the West Yorkshire Archaeology Advisory Service, the curators of the West Yorkshire Historic Environment Record.

NOTE: The requirements detailed in paragraphs 6.1.1 to 6.1.5 inclusive, 8.3 and 8.4 are to be met by the archaeological contractor **prior** to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

2 Site Location and Description

2.1 Location

(**412557 424184**) The site of Walterclough Pit Head is located on the western side of the Walter Clough Valley and reached from the north via a farm track off Sutcliffe Wood Lane. Lower Clay Royd Farm is the nearest settlement to the site.

2.2 Description

The site comprises four pit head buildings in two groups which lie to the south and west of the pit's capped shafts. The buildings sit on a terrace or platform with a retaining dry stone wall to the south-east and landscaped spoil heaps to the north and east. The first group of buildings include a single storey stone and brick built pithead office with a large window opening overlooking the capped pit head; a larger stone built single storey shed, workshop or engine house; adjacent to the south-west is the fan house which is also stone built and contains remains of the mine's ventilation fan with fandrift or tunnel leading off it to the north-east towards the mine.

The second group comprises the two storey mine offices, bathhouse and associated single story structures. These are constructed from a mix of stone, concrete and brick.

The buildings have a total footprint of c. 190m^2 and are in a fair to poor condition.

3 Planning Background

The site owners, through their agents Townsend Planning Consultants (10 Rishworth Street, Wakefield, WF1 3BY ☏ 01924 366733) have obtained planning consent (Planning Application No. 09/01101/FUL) for the conversion of the remaining pithead buildings to two dwellings. The WY Archaeology Advisory Service (as Calderdale's archaeological advisor) has prepared this specification in order to allow the owners to meet the terms of an archaeological condition which has been placed on the consent.

4 Archaeological Interest

4.1 Historical Background

Walterclough pit is believed to have opened in 1888 and operated as a coal and fireclay mine and later a fireclay mine only until closure in the late 1960s (1965 or 1969). The 1893 OS map does not name or identify the pit but structures and earthworks suggesting a pit head are shown to the south-west of Walterclough Mill. In 1906 the mine was bought by Walter Brooke to supply his nearby brickworks. Winnings from the mine were transported from the pit by aerial ropeway to a rail head some 350m to the east and 50m above the valley floor near Halifax Road. Early 20th century maps show that of the surviving buildings only the large shed is likely to date from the pit's early years. Historic photographs suggest this building may have housed the winding engine associated with one of the pit's two shafts.

Whilst the other buildings are clearly of mid 20th century date or later they represent rare survivors of their type in the county and comprise a fan house and fandrift (tunnel) which ventilated the mine, later built offices and welfare facilities. In all cases evidence of their former uses survives (housing for the ventilating fan and exhaust fan, and shower block).

4.2 Impact of proposed development

Conversion of these buildings to dwellings will result in the removal of archaeological evidence relating to their original function.

5 Aims of the Project

5.1 The first aim of the proposed work is to identify and objectively record by means of photographs and annotated measured drawings any significant evidence for the original and subsequent historical form and functions of the buildings, and to place this record in the public domain by depositing it with the WY Historic Environment Record (Registry of Deeds, Newstead Road, Wakefield WF1 2DE).

5.2 The second aim of the proposed work is to analyse and interpret the buildings as an integrated system intended to perform a specialised function. The archaeologist on site should give particular attention to reconstructing as far as possible the functional arrangements and division of the buildings.

6 Recording Methodology

6.1 General Instructions

6.1.1 Health and Safety

The archaeologist on site will naturally operate with due regard for Health and Safety regulations. Prior to the commencement of any work on site (and preferably prior to submission of the tender) the archaeological contractor may wish to carry out a Risk Assessment in accordance with the Health and Safety at Work Regulations. The archaeological contractor should identify any contaminants which constitute potential Health and Safety hazards (e.g. chemical drums) and make arrangements with the client for decontamination/making safe as necessary and appropriate. The WY Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries which may occur to outside contractors engaged to undertake this survey while attempting to conform to this specification.

6.1.2 Confirmation of adherence to specification

Prior to the commencement of any work, the archaeological contractor must confirm in writing adherence to this specification (using the attached form), or state in writing (with reasons) any specific proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WY Archaeology Advisory Service to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor (see para. 8.3, below). Modifications presented in the form of a re-written project brief will not be considered by the West Yorkshire Archaeology Advisory Service.

6.1.3 Confirmation of timetable and contractor's qualifications

Prior to the commencement of *any work*, the archaeological contractor must provide WYAAS in writing with:

- a projected timetable for the site work
- details of project staff structure and numbers
- names and *CVs* of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors *etc.*)
- details of any specialist sub-contractors if used

All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles. In particular, staff involved in building recording should have proven expertise in the recording and analysis of industrial buildings. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

6.1.4 Site preparation

Prior to the commencement of work on site the archaeological contractor should identify all removable modern material (including modern machinery) which may significantly obscure material requiring an archaeological record, and should contact the developer in order to make arrangements for their removal (if necessary, under archaeological supervision). Some clearance of vegetation will also have to be removed in order to gain access and complete the record. It is not the intention of this specification that large-scale removal of material of this type should take place with the archaeological contractor's manpower or at that contractor's expense.

6.1.5 Documentary research

Prior to the commencement of work on site, the archaeological contractor should undertake a rapid map-regression exercise based on the readily-available map and photographic evidence held by the relevant Local History Library (Brighouse Library, Halifax Road, Brighouse HD6 2AF: 01422 288060) and the West Yorkshire Archive Service's Calderdale office (WYAS, Calderdale Central Library, Northgate House, Northgate, Halifax HX1, 1UN: Telephone 01422 392636), and a rapid examination of the available 19th- and 20th-century Trades and Postal directories, the appropriate census returns and all other available primary and relevant secondary sources. This work is intended to inform the archaeological recording by providing background information with regard to function and phasing. Please note that this exercise is not intended to be a formal desk-based assessment, and should not represent a disproportionate percentage of the time allowed for the project overall.

6.1.6 Use of existing plans

Fennell, Green & Bates have produced plans and elevations of the existing buildings. If appropriate, these plans may be used as the basis for the drawn record and for any annotation relative both to the historic and photographic record. Additional information relevant to the historic record should be indicated on the plans, which shall be re-drawn as necessary. It is the responsibility of the archaeological contractor to check the accuracy of these drawings and to make any necessary adjustments or corrections. Contractors are therefore advised to determine prior to the submission of tender whether major re-survey/re-drawing will be necessary. For this purpose, the WY Archaeology Advisory Service would suggest that the tendering contractor check a small number of randomly selected measurements across the site, e.g. a few long face measurements, the position and size of a selection of doors and windows, and a random series of internal diagonals (it is accepted that the contracting archaeologist will not be able to identify isolated and unpredictable errors by using this method). It is the archaeological contractors' responsibility to obtain the appropriate copyright permissions for any original material employed as a basis for further work.

6.2 Sequence of recording

6.2.1 Initial record

Site preparation works should be carried out to make the site amenable to the compilation of a full record. The structures should be recorded as extant, with due provision made for the removal of any debris, vegetation or modern material which may obscure fabric or features requiring an archaeological record (para 6.1.4 above).

6.2.2 Watching Brief

If the entire site is not amenable to recording then subsequent to the commencement of structural work on site, a watching brief should be maintained by the contracting archaeologist to record any pertinent historic structural or functional detail which may be exposed during the course of demolition but which are currently inaccessible, overbuilt or obscured by later alterations to a degree not remediable under normal circumstances of site preparation. This record should be obtained by means of notes, drawings and photographs as appropriate, to the standards outlined elsewhere in this specification. This detail should then be incorporated into the completed record.

6.3 Written Record

The archaeologist on site should carefully examine all parts of each building prior to the commencement of the drawn and photographic recording, in order to identify all features relevant to its original use and to obtain an overview of the development of the building and of the site as a whole. As part of this exercise, the archaeologist on site should produce written observations (e.g. on phasing; on building function) sufficient to permit the preparation of a report on the structure. This process should include the completion of a Room Data Sheet or similar structured recording pro-forma[1] for each room or discrete internal space within the volume of the structure. The crucial requirement is that each room should be examined individually, that the results of that examination should be noted in a systematic fashion, and that these

[1] The WY Archaeology Advisory Service would recommend the employment of the attached pro-forma, but will consider any suitable alternative which the archaeological contractor may wish to submit (Note that agreement for the employment of an alternative *schema* must be obtained in writing from the WY Archaeology Advisory Service prior to the commencement of work on site).

objective observations should be used to inform an analytical interpretation of the overall development and operation of the site.

6.4 Drawn Record

6.4.1 Drawings required

The drawn record should comprise floor plans of all four buildings and the fandrift. In addition

- A section through the fan house and fandrift should be prepared to show its construction and method of operation

- A transverse section of the shed/possible winding engine house

Drawings should be made at an appropriate scale (not smaller than 1:100 for plans; not smaller than 1:50 for sections). The structures should be recorded as existing, but a clear distinction should be made on the final drawings between surviving as-built features and all material introduced in the structure during the late 20th-century.

6.4.2 Provision for Additional Drawings

6.4.2a The recording requirements outlined above are based on a brief inspection of the site by the WY Archaeology Advisory Service. However, detailed examination and analysis of the site by the archaeological contractor may reveal features which merit detailed recording beyond what has been specifically required. In addition to what is requisite to complete the work specified above, the archaeological contractor should tender for a contingency period of two days recording on site (with four days drawing-up time off site – six days in total) in order that features so identified may be adequately recorded. This contingency should be clearly and separately identified in any tender document.

6.4.2b If features requiring additional drawing are identified during the course of work on site, the WY Archaeology Advisory Service should be contacted as soon as possible, and should be provided in writing with a schedule of proposed additional work. A site visit will then be arranged by the WYAAS to examine the features in question and to assess the need to apply the contingency (this visit will usually be combined with a routine monitoring visit). Implementation of the contingency will be at the decision of the West Yorkshire Archaeology Advisory Service, which will be issued in writing, if necessary in retrospect after site discussions.

6.4.3 Scope of record

All features of archaeological and architectural interest identified during the process of appraisal should be incorporated into, and clearly identified in, the final drawn record. Typically, items of interest would include:

- Evidence for the location and mountings of engines or electric motors, fans, adjustable baffles etc. in the fan house

- Evidence for the original use of the large shed. This building may have housed a winding engine,

- Evidence of the pithead office's original function - possible role in the operation of the aerial ropeway.

- Site Welfare facilities (shower block)

but this list should not be treated as exhaustive. The archaeologist on site should also identify and note:

- any significant changes in construction material – this is intended to include significant changes in stone/brick type and size
- any blocked, altered or introduced openings
- evidence for phasing, and for historical additions or alterations to the building.

6.4.4 Dimensional accuracy

Dimensional accuracy should accord with the normal requirements of the English Heritage Architecture and Survey Branch (at 1:20, measurements should be accurate to at least 10mm; at 1:50, to at least 20mm; at 1:100, to at least 50mm). Major features such as changes in structural material may be indicated in outline. The recording of individual stones or stone courses is not required unless greater detail is needed in order to adequately represent a particular feature of interest.

6.4.5 Drawing method

The survey may be executed either by hand or by means of reflectorless EDM as appropriate. In accordance with national guidelines[2], drawings executed on site should be made either on polyester-based film (minimum thickness 150 microns) with polymer-bonded leads of an appropriate thickness and density, or on acid-free or rag paper. If finished drawings are generated by means of CAD or a similar proven graphics package, recorders should ensure that the software employed is sufficiently advanced to provide different line-weight (point-size); this feature should then be used to articulate the depth of the drawings. CAD repeats or cloning of features should **not** be used. What is required as an end product of the survey is a well-modelled and clear drawing; ambiguous flat-line drawings should be avoided. Drawing conventions should conform to English Heritage guidelines as laid out in English Heritage 2006, *Understanding Historic Buildings – a guide to good recording practice,* and the WYAAS would recommend that the CAD layering protocol detailed in the same volume (8.3, Table 2) should be adhered to.

6.5 Photographic Record

6.5.1 External photographs

An external photographic record should be made of all elevations of each building, from vantage points as nearly parallel to the elevation being photographed as is possible within the constraints of the site. The contractor should ensure that all visible elements of each elevation are recorded photographically; this may require photographs from a number of vantage points. A general external photographic record should also be made which includes a number of oblique general views of the buildings from all sides and the dry stone terrace wall, showing them and the complex as a whole in their setting. In addition, a 35mm general colour-slide survey of the buildings should also be provided (using a variety of wide-angle, medium and long-distance lenses). While it is not necessary to duplicate every black-and-white shot, the colour record should be sufficiently comprehensive to provide a good picture of the form and general appearance of the complex and of the individual structures.

6.5.2 Internal photographs

[2] English Heritage 2006, *Understanding Historic Buildings – a guide to good recording practice*, 7.1.1ff

A general internal photographic record should be made of each building. General views should be taken of *each room* or discrete internal space from a sufficient number of vantage points to adequately record the form, general appearance and manner of construction of each area photographed. In areas which are wholly modern in appearance, character and materials, a single shot to record current appearance will suffice.

6.5.3 Detail photographs

In addition, detailed record shots should be made of all individual elements noted in section 6.4.3 above. Elements for which multiple examples exist (e.g. each type of roof truss, column or window frame) may be recorded by means of a single representative illustration. **N.B.** Detail photographs must be taken at medium-to-close range and be framed in such a way as to ensure that the element being photographed clearly constitutes the principal feature of the photograph.

6.5.4 Equipment

General photographs should be taken with a Large Format camera (5" x 4" or 10" x 8") using a monorail tripod, or with a Medium Format camera which has perspective control, using a tripod. The contractor must have proven expertise in this type of work. Any detail photographs of structural elements should if possible be taken with a camera with perspective control. Other detail photographs may be taken with either a Medium Format or a 35mm camera. All detail photographs must contain a graduated photographic scale of appropriate dimensions (measuring tapes and surveying staffs are not considered to be acceptable scales in this context). A 2-metre ranging-rod, discretely positioned, should be included in a selection of general shots, sufficient to independently establish the scale of all elements of the building and its structure.

6.5.5 Film stock

All record photographs to be black and white, using conventional silver-based film only, such as Ilford FP4 or HP5, or Delta 400 Pro (a recent replacement for HP5 in certain film sizes such as 220). Dye-based (chromogenic) films such as Ilford XP2 and Kodak T40CN are unacceptable due to poor archiving qualities.

6.5.6 Digital photography

As an alternative to our requirement for colour slide photography, good quality digital photography may be supplied as an alternative, using cameras with a minimum resolution of 4 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file). The contractor must include metadata embedded in the DNG file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. Images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.

6.5.7 Printing

6.5.6a Record photographs should be printed at a minimum of 5" x 7". In addition, a selection of photographs intended to illustrate structural detail should be printed at 10" x 8" (it is expected that there is likely to be a need of an average of 2 such prints per building). Bracketed shots of identical viewpoints need not be reproduced, but all viewpoints must be represented within the report.

6.5.6b Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability. Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

6.5.7 Documentation

A photographic register detailing (as a minimum) location, direction and subject of shot must accompany the photographic record; a separate photographic register should be supplied for any colour slides or for colour digital photographs. The position and direction of each photograph and slide should be noted on a copy of the building plan, which should also be marked with a north pointer; separate plans should be annotated for each floor of each building

7. Post-Recording Work and Report Preparation

7.1 After completion of fieldwork

Prior to the commencement of any other work on site, the archaeological contractor should arrange a meeting at the offices of the WY Archaeology Advisory Service to present a draft of the 1st- stage drawn record (fully labelled and at the scale specified above), a photo-location plan, and photographic contact prints adequately referenced to this plan (material supplied will be returned to the contractor). **N.B**. if full-sized prints or digital versions of contact sheets are supplied for this purpose, they must be accompanied by a sample of the processed negatives. If appropriate, the WY Archaeology Advisory Service will then confirm to Calderdale Planning Services that fieldwork has been satisfactorily completed and that other work on site may commence (although discharge of the archaeological condition will not be recommended until the watching brief has been undertaken and a completed copy of the full report and photographic record has been received and approved by the West Yorkshire Archaeology Advisory Service). Please note that as of the 1st April 2011, the WYAAS will charge the archaeological contractor a fee for each fieldwork verification meeting.

7.2 Report Preparation

7.2.1 Report format and content

A written report should be produced. This should include:

- an executive summary including dates of fieldwork, name of commissioning body, and a brief summary of the results including details of any significant finds
- an introduction outlining the reasons for the survey

- a brief architectural description of the buildings presented in a logical manner (as a walk around and through the buildings, starting with setting, then progressing to all sides of the structure in sequence, and finally to the interior from the ground floor up)
- a discussion placing the building/complex in its local, historical and technological contexts,, describing and analysing the development of individual structures and of the complex as a whole. This analysis should consider the pit head as an integrated system intended to perform a specialised function, with particular attention being given to historical plan form, technical layout and process flow.

7.2.2 Both architectural description and historical/analytical discussion should be fully cross-referenced to the drawn and photographic record, sufficient to illustrate the major features of the site and the major points raised.

7.2.3 The architectural description should be fully cross-referenced to the drawn and photographic record, sufficient to illustrate the major features of the site and the major points raised. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers. A copy of this specification and a quantified index to the field archive should also be bound into the back of the report. The cover sheet should include a centred eight-figure OS grid reference and the name of the township in which the site is located (Southwram).

7.2.4 Report Illustrations

Illustrations should include:

- a location map at a scale sufficient to allow clear identification of the pit head in relation to other buildings in the immediate area
- an overall keyed plan of the site showing the surviving buildings in relation to each other and to the buildings on site which have been demolished
- any relevant historic map editions, with the position and extent of the site clearly indicated
- a complete set of site drawings completed to publication standard, at the scale stipulated in Para. 6.4.1 above (unless otherwise agreed in writing by the West Yorkshire Archaeology Advisory Service)
- a complete set of site drawings at a legible scale, on which position and direction of each photograph has been noted
- any additional illustrations pertinent to the site
- a complete set of good-quality laser copies of all photographs (reproduced at a minimum of 5” x 7”).

7.2.4 The latter should be bound into the report in the same logical sequence employed in the architectural description (Para. 7.2.1 above) and should be appropriately labelled (numbered, and captioned in full). When captioning, contractors should identify the individual photographs by means of a running sequence of numbers (e.g. Plate no. 1; Plate no. 2), and it is this numbering system which should be used in cross-referencing throughout the report and on the photographic plans. However, the relevant original film and frame number should be included in brackets at the end of each caption.

7.3 Report deposition

7.3.1 General considerations

7.3.1a The report should be supplied to the client and identical copies supplied to the West Yorkshire HER, the WY Archive Service and to the National Monuments Record (English Heritage, Kemble Drive, Swindon SN2 2GZ – for the attention of Mike Evans, Head of Archives). The report supplied to the NMR should be in digital format only. A recommendation from WYAAS for discharge of the archaeological condition is dependant upon receipt by WYAAS of a satisfactory report which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.

7.3.1bThe report copy supplied to the West Yorkshire HER should include a complete set of photographic prints (see Para. 7.3.2 below). The finished report should be supplied within eight weeks of completion of all fieldwork, unless otherwise agreed with the West Yorkshire Archaeology Advisory Service. The information content of the report will become publicly accessible once deposited with the Advisory Service, unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposit.

7.3.1c **Copyright** - Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act* 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

7.3.1.d The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. Contractors are advised to contact the West Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer at the West Yorkshire HER.

7.3.1e With the permission of the developer, the archaeological contractor are encouraged to consider the deposition of a copy of the report for this site with the appropriate Local History Library.

7.3.2 Deposition with WY Archaeology Advisory Service (West Yorkshire Historic Environment Record)

The report copy supplied to the WY Archaeology Advisory Service should also be accompanied by both the photographic negatives and a complete set of labelled photographic prints (mounted in KENRO display pockets or similar, and arranged in

such a way that labelling is readily visible) bound in a form which will fit readily into a standard filing cabinet suspension file (not using hard-backed ring-binders). Labelling should be on the *back* of the print in pencil giving film and frame number only and on applied printed labels on the front of the appropriate photographic sleeve which should include:

- film and frame number
- date recorded and photographer's name
- name and address of building
- national grid reference
- specific subject of photograph.

Negatives should be supplied in archivally stable mounts (KENRO display pockets or similar), and each page of negatives should be clearly labelled with the following:

- Township name (Southwram)
- Site name and address (Walterclough Pit)
- Date of photographs (month/year)
- Name of archaeological contractor
- Film number

Colour slides should be mounted, and the mounts suitably marked with – 'Southwram…' (the township) with 'Walterclough Pit' under, at the top of the slide; grid reference at the bottom; date of photograph at the right hand side of the mount; subject of photograph at the left hand side of the mount. Subject labelling may take the form of a numbered reference to the relevant photographic register. The slides should be supplied to the WY Archaeology Advisory Service in an appropriate, archivally stable slide hanger (for storage in a filing cabinet).

7.4 Summary for publication

The attached summary sheet should be completed and submitted to the WY Archaeology Advisory Service for inclusion in the summary of archaeological work in West Yorkshire published on the WYAAS website. During fieldwork monitoring visits WYAAS officers will take digital photographs which may be published on the Advisory Service's website as part of an ongoing strategy to enable public access to information about current fieldwork in the county.

7.5 Preparation and deposition of the archive

After the completion of all recording and post-recording work, a fully indexed field archive should be compiled consisting of all primary written documents and drawings, and a set of suitably labelled photographic contact sheets (only). Standards for archive compilation and transfer should conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2007). The field archive should be deposited with the Calderdale Office of the West Yorkshire Archive Service (WYAS, Calderdale Central Library, Northgate House, Northgate, Halifax HX1, 1UN: Telephone 01422 392636), and should be accompanied by a copy of the full report as detailed above. Deposition of the archive should be confirmed in writing to the WY Archaeology Advisory Service.

8 General considerations

8.1 Technical queries
Any technical queries arising from this specification should be addressed to the WY Archaeology Advisory Service without delay.

8.2 Authorised alterations to specification by contractor
It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the West Yorkshire Archaeology Advisory Service. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that

> i) a part or the whole of the site is not amenable to recording as detailed above, and/or
> ii) an alternative approach may be more appropriate or likely to produce more informative results, and/or
> iii) any features which should be recorded, as having a bearing on the interpretation of the structure, have been omitted from the specification,

then it is expected that the archaeologist will contact the WY Archaeology Advisory Service as a matter of urgency. If contractors have not yet been appointed, any variations which the WY Archaeology Advisory Service considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WY Archaeology Advisory Service will resolve the matter in liaison with the developer and the Local Planning Authority.

8.3 Unauthorised alterations to specification by contractor
It is the archaeological contractor's responsibility to ensure that they have obtained the West Yorkshire Archaeology Advisory Service's consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WY Archaeology Advisory Service being unable to recommend discharge of the archaeological recording condition to the Local Planning Authority and are made solely at the risk of the contractor.

8.4 Monitoring
This exercise will be monitored as necessary and practicable by the WY Archaeology Advisory Service in its role as 'curator' of the county's archaeology. The Advisory Service should receive at least one week's notice in writing of the intention to start fieldwork. A copy of the contractor's Risk Assessment should accompany this notification.

8.5 Valid period of specification
This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

Any queries relating to this specification should be addressed to the WY Archaeology Advisory Service without delay.

West Yorkshire Archaeology Advisory Service
David Hunter **November 2011**

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WF1 2DE

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