Healey Dell Nature Reserve, Dell Road, Rochdale

An Archaeological Survey

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Summary

This report presents the results of a programme of archaeological fieldwork carried out at Healey Dell Nature Reserve, Dell Road, Rochdale (NGR centred SD 8803 1613) by the University of Manchester Archaeological Unit (UMAU) and commissioned by Rochdale MBC.

This work followed an archaeological desk-based assessment and consisted of the detailed survey of four sites, Broadley Mill, Broadley Wood Mill, Broadley Stone Rubbing Mill and Th'Owd Mill I't Thrutch. The work was undertaken in order to provide detailed information on the potential of these sites as a community resource and to aid possible site interpretation.

This report describes the individual features recorded at each site, cross-referenced to measured site plans; it also discusses the contribution of the findings of the measured survey to the outstanding of these sites; and finally considers the potential of each site for a possible programme of community archaeology.

1. Introduction

The University of Manchester Archaeological Unit (UMAU) was commissioned by Rochdale MBC to undertake a programme of archaeological fieldwork at Healey Dell Nature Reserve, Dell Road, Rochdale. The work was undertaken in order to provide detailed information on the potential of four sites as a community resource and to aid possible site interpretation. The work was carried out in accordance with a brief provided by Norman Redhead, Assistant County Archaeologist, the Greater Manchester Archaeological Unit (GMAU), the archaeological curator for the county.

The work comprised the detailed survey of four sites, Broadley Mill, Broadley Wood Mill, Broadley Stone Rubbing Mill and Th'Owd Mill I't Thrutch, identified by an archaeological desk-based assessment (Arrowsmith 2004).

The fieldwork was undertaken between the 30th January and the 6th March 2006 and was monitored by Norman Redhead. This report presents the results of that work.

2. Background

2.1 Location

2.1.1 The Healey Dell study area examined within the initial desk-based assessment comprises a linear area extending along the valley of the River Spodden for a distance of c 2km, and located c 1.5-3.5km north-west of Rochdale town centre. This area principally comprises the Healey Dell Nature Reserve (NGR centred SD 8803 1613) and, to the south of the Healey Viaduct, also encompasses an area of privately owned land which includes Healey Bottoms Mill. The greater part of the area is wooded, with open grassland in the far north and bodies of water which were formerly the reservoirs of Healey Bottoms Mill, Broadley Mill and Broadley Wood Mill. Vehicle access into the study area is provided by Station Road in the north and Dell Road in the south. A dismantled railway line, which crosses the Spodden valley on the Healey Viaduct, runs almost the full length of the study area and now serves as a footpath.

Following the assessment, four sites were chosen for detailed survey. These comprise Broadley Mill, Broadley Wood Mill, Broadley Stone Rubbing Mill and Th'Owd Mill I't Thrutch. The last of these sites lies within the district of Rossendale in Lancashire; the others lie within the Metropolitan Borough of Rochdale in Greater Manchester.

2.1.2 Broadley Mill (SD 88005 16340) spans the east and west sides of the River Spodden to the south of a bridge and footpath. To the west is a steep embankment leading to the former railway. The site is bounded on the east by the footpath leading to Station Road and at the south by an eastern bend in the river.

2.1.3 Broadley Wood Mill (SD 87900 16425) lies to the north-west of Broadley Mill with Station Road to the east, the track to Broadley Fold to the north and a pond to the west.

2.1.4 Broadley Stone Rubbing Mill (SD 88023 16833) lies to the north of Broadley Wood Mill at the northern limit of the study area. To the east is the former railway with a disused tramway (now a footpath) to the north and an embankment to the west.

2.1.5 Th'Owd Mill I't Thrutch (SD 88102 15997) is situated on the south bank of the River Spodden to the immediate east of the railway viaduct. The north-eastern limit of the site comprises the rock outcrop of the south-western end of the Healey Dell gorge and the site lies on a series of terraces between a footpath to the south and the river to the north.

2.2 Topography and Current Land Use

2.2.1 Broadley Mill lies on flat ground with the River Spodden running north to south through the centre of the site and turning east at the southern limit. To the west is a steep slope which becomes more gradual to the north-west. At the south-west and south is a stone revetment wall. The eastern side of the site is revetted with the footpath to Station Road above and a steep slope to the south-east. The site is currently covered with light woodland and heavy vegetation with a large area of dense brambles and Japanese Knotweed covering the former allotments on the eastern side of the river.

2.2.2 Broadley Wood Mill lies in a depression with stone revetment walling to the west and north-west and steeply sloping embankments to the south, north and north-east. The eastern portion of the site is covered in hard standing and is currently used as a car park. Steps lead from the car park northwards up to a second parking area which lies in the northern portion of the site at the top of the slope. The centre of the site is covered in mounds of demolition rubble with brambles, Japanese Knotweed and some saplings growing within it.

2.2.3 Broadley Stone Rubbing Mill lies on a narrow strip of flat ground with a steep embankment to the west and a smaller embankment to the east with a stone revetment wall, below which is the former railway. Most of the site is clear of vegetation but there is light woodland along the western embankment and moderate woodland and heavy brambles at the northern and southern ends of the site.

2.2.4 Th'Owd Mill I't Thrutch lies on a series of three terraces between a footpath and the river. The north-eastern end of the site is bounded by rocky outcrops at the south-western end of the Healey Dell gorge from which stone revetment walls run south-west on the southern side of the area. The edge of the river is formed by a stone revetment from the rock outcrops in the north-east to the south-west end of the site where a steep slope leads down to the river and weir.

2.3 Geology

2.3.1 The overlying drift geology, as mapped by the OS Geological Survey (sheet 76), comprises boulder clay with outcrops along the east side of the Spodden, particularly at Th'Owd Mill I't Thrutch.

2.3.2 The underlying solid geology, as mapped by the OS Geological Survey (sheet 85), comprises Carboniferous Lower Coal Measures.

2.4 Archaeological and Historical Background

(from Arrowsmith 2004)

2.4.1 Broadley Mill

Broadley Mill was one of the earliest mill sites along the Spodden. According to John Corry writing in the early 19th century, Broadley Mill served as a corn mill after an earlier mill in the valley, at Th'Owd Mill I't Thrutch, was converted to fulling after 1636. Richard Heape, however, states that Broadley Mill was originally a fulling mill, which is mentioned in a deed of 1640 when it was owned by the Milne family of Milnrow. He adds that other deeds show that it remained in the possession of the Milnes until perhaps 1754, and that 'after 1757, probably 1761', it was bought by John Chadwick of Healey Hall from the trustees of John Milne, gent, deceased. The mill does not appear to be listed in the Rochdale Survey of 1626, implying that its construction, for whatever original purpose, was later than that date.

In 1750 the Poor Rate Assessment for Spotland included John Taylor, assessed 'for Mill and Birches'. The farm and settlement of that name lay on the high ground to the east of Broadley Mill, and it is likely that this is the mill site which is meant.

The Spotland Poor Rate Book for 1768 lists Broadley Mill as owned by John Chadwick and occupied by John Clegg, described as the tenant of the 'Mill & Clod at Broadly'. In 1772 the occupant of 'Broadleymill' was Thomas Butterworth and in 1776 Richard Turner. In the

Poor Rate Book of the following year his name had been struck through and replaced by that of Mary Turner who is still listed here in 1780.

By 1782 there had been a significant change of occupancy, with the mill for the next four decades being in the hands of the Holts. The first of these were John and Robert Holt, listed in the Land Tax Returns as occupants from 1782 to 1801, while Robert Holt is named between 1802 and 1823. Trade directories in the mid-1810s list John and Robert Holt & Co as woollen manufacturers, with their address being given as Lower Place, and in 1818 name Francis Holt, merchant, again at Lower Place.

Robert Holt undertook new building work at Broadley Mill, which included the datestone 'RH 1790' (later removed, by 1918, to the nearby Birch Villa), and another stone inscribed 'RH 1804'. According to Richard Heape, this last datestone was 'the keystone to the arch over the river, and when this part of the building fell, the stone went into the riverbed, where it remained'. The earlier datestone would appear to relate to a major building phase, for in the Poor Rate Book of 1790 the site is described as 'Broadley Mill New Mill & Dam'.

In 1823 a Spotland Poor Rate valuation, which copies an earlier 1819-20 survey, lists Broadley Mill as owned by Charles Chadwick and occupied by Francis Holt. It also shows that by this period the site lay on either side of the Spodden. Thus on the eastern side of the river, in the hamlet of Healey, the mill is described as comprising 'Old Mill, New Mill, Blue House, Stove &c', while on the western side, in the hamlet of Catley Lane, the valuation lists a 'Dryhouse & yard', 'Tenter Ground', 'Cottage & Mill', 'Lodge', 'Piece House & Tenter Ground', 'Mills, Waterfall &c', 'Little Lodge', 'House, Barn & Garden' and seven cottages. The extent of the mill on this western side of the river seems to exceed that suggested by later evidence, including the Poor Rate valuation of 1834. In this later valuation, the Healey side of the mill was described as including a 'Fulling Mill & water power with blue house & wash house' and a 'Brimstone stove', while the Catley Lane side contained a 'Barn &c', 'Dry house' and 'Tenter ground'. It seems likely that the entry for Catley Lane in 1823 refers both to Broadley Mill and Broadley Wood Mill, which is otherwise not mentioned in the valuation of that year. Fortunately there is evidence to confirm that this was the case. In both valuations these entries include numbers relating to mapping of 1819-20, now lost. From these it emerges that the 'Cottage & Mill' and 'Lodge' listed in 1823 were the 'Scite of Mill' and 'Lodge of Mill' explicitly listed as components of Broadley Wood Mill in 1834.

The occupancy of Broadley Mill by the Holts may have ended shortly after the 1823 valuation was produced, for in 1824-5 John Chadwick & Sons are listed as woollen manufacturers at the mill. By 1834 the mill, owned by Hugo Chadwick, was occupied by Robert and John Tweedale, the sons of John Tweedale of Leach Tweedale & Co. According to Maxim, Robert and John Tweedale took over the mill in 1830 and remained here until 1875, during which period they constructed a cotton mill adjacent to the woollen mill. Trade directories list John and Robert Tweedale as manufacturers of baize and flannel at Broadley Mill in 1834 but by 1838 a second firm is listed here, that of John Tweedale & Sons, cotton spinners who by 1841 also operated from Smallshaw Mill.

By 1843, probably as a result of recent additions to the site, the entry for the mill in the 1834 Poor Rate valuation was evidently deemed to be inadequate and a new, more detailed description was appended. According to this, on the Healey side the site consisted of 'Part of Mill', 'Fulling Mill, Stocks, Water Wheel and Water Power', 'Woollen Mills, staircase, Card room and oil room', 'Fire engine house', 'Engine house, Boiler house, Dry house and steam power', 'Dye house, Dye pans & Cisterns', 'Gas works one half', 'Weighing Machine & Office', 'Chimney' and 'Counting House'. On the Catley Lane side there were a 'Stove, or Dry house', 'Smithy', 'Press Room, Glossing Room, Firehole & Counting House', 'Store

room, Staircase, Warehouse, Carding & Throstle Rooms', 'Old Washing Room', 'Tenters', 'Part of Gasworks' and 'Spring Water'. The same source names Messrs Tweedale & Sons were named as both the owner and the occupant of the whole site, but all other evidence examined identifies them only as tenants.

In 1847 the evidence given in connection with the Rochdale Waterworks Amendment Act lists two Broadley Mills and describes both as a woollen mill occupied by Messrs J and R Tweedale. One of these mills was powered solely by a waterwheel, of 21hp. The other was equipped with a 30hp steam engine and 24hp waterwheel. According to Maxim, the boiler house at Broadley Mill carried a datestone '1836'. The implication is that steam power, which is not mentioned in the valuation of 1834, was installed at that date.

In a separate account, Maxim cites an undated advertisement for the sale or lease of the mill, described as being held by the Tweedales for a term of years expiring in 1890. According to this account the site included a woollen mill for spinning and weaving. Fulling was also taking place on the site, which contained seven stocks, sulphur stoves, and buildings for dyeing and drying goods. There were still two waterwheels at the mill, while the cotton mill was supplied with 30hp. Maxim himself states that the site had two waterwheels of 14ft diameter and a steam engine of 30hp.

From the evidence of the trade directories John Tweedale & Sons were still operating as cotton spinners at the mill in 1873 (Table 1). A rate book of 1864, however, lists the site, which was owned by John de Heley Chadwick, as occupied by Samuel Tweedale, who is named in a directory of 1873 as a woollen manufacturer here. According to the 1864 rate book on the Nearer Spotland side the site comprised 'Part of Mill, Fulling Mill, River, Carding Mill, Fire Engine House, Weighing Machine, Counting House and one half of Gasworks &c', and on the Further Spotland side 'Tenters, Land & Spring Water, Stove, Dryhouse & Smithy, Part of Mill & Warehouse, Press shop & Counting house, Staircase, Cartshed, Part of Gasworks, Hayshed &c'.

The censuses of 1841 to 1871 record Robert Tweedale and his family living at Broadley Mill. In 1841 and 1851 he is listed as a woollen manufacturer but in 1861 this is given as his former occupation. In line with this the firm of John and Robert Tweedale no longer appears to be listed within the directories. The 1864 rate book shows that Robert Tweedale owned the house which he occupied at Broadley Mill, thereby perhaps explaining his continuing association with the place after the occupancy of the mill had passed to Samuel Tweedale. In the final years of his life Robert seems to have resumed an active involvement in the textile industry. In the census of 1871 he is listed as a dyer, while in a directory of two years previously he appears with the same occupation, with the address explicitly given as Broadley Mill. He died in 1873.

It is stated that the mill finally closed in about 1880. On the 1890 OS map, which names the site as disused, the majority of the buildings are shown as intact, but by 1908 all but one appear to have been a shell. The mill chimney, which was about 150 feet tall, was blown up with dynamite in June 1913. The event was recorded in a contemporary newspaper which noted that the 'old ruinous mill buildings' were also under contract for demolition, but the mapping shows much of the site still standing in 1928. All the buildings have since been demolished, but foundations of a number of buildings are still visible, albeit much overgrown.

1824-5	John Chadwick & Sons, woollen manufacturers and merchants, Packer-St & Broadley Mills, near Whitworth	Pigot & Dean, 414
1834	John & Robert Tweedale, manufacturers of flannel and baize, Broadley Mill	Pigot & Co, 530
1838	John & Robert Tweedale, woollen manufacturers, Broadley Mills John Tweedale & Sons, cotton spinners, Broadley Mills	Pigot & Son, 136 Pigot & Son, 136
1841	John & Robert Tweedale, woollen manufacturers, Broadley Mill John Tweedale & Sons, cotton spinners, Broadley and Smallshaw Mills	Pigot & Slater, 132 Pigot & Slater, 132
1858	John & Robert Tweedale, manufacturers of flannel and baize, Broadley Mills John Tweedale & Sons, cotton spinners, Broadley and Smallshaw Mills	Slater, 383 Slater, 379
1861	John Tweedale & Sons [sic], manufacturers of flannel and baize, Broadley Mills John Tweedale & Sons, cotton spinners, Broadley and Smallshaw Mills	Slater, 405 Slater, 400
1865	John Tweedale & Sons, cotton spinners, Smallshaw and Broadley Mills	Slater, 721
1869	John Tweedale & Sons, cotton spinners, Smallshaw Mills Robert Tweedale, dyer, Broadley Mill	Slater, 660 Slater, 661
1873	Samuel Tweedale, woollen manufacturer, Broadley Mill John Tweedale & Sons, cotton spinners, Smallshaw	Kelly, 1818 Kelly, 1818

Table 1: Occupants of Broadley Mill listed in trade directories.

The relatively early date at which Broadley Mill ceased to operate means that it was not listed in the Spotland mill valuation of 1880. Consequently the main information about its layout is provided by mapping, early photographs, the details provided in the earlier rating documents and, to a lesser extent, by the surviving visible remains.

The 1844-8 OS map shows a plan which remained largely unchanged at the mill's demise. The main part of the site lay on the north, and comprised an irregular range running roughly south-east to north-west. Its western half straddled the river, and so must have been the part which Maxim states to have had a datestone of 1804 as the 'the keystone to the arch over the river'. On the east this abutted a narrower build which straddled the headrace and can therefore be assumed to have contained a wheelhouse. Whether this contained both of the mill's two waterwheels is uncertain.

The other buildings of the mill ran southwards from this main range, on either side of the river, where a number of stone footings are still visible. On the south-east these buildings included what would appear to have been the millowner's house, a building which seems to have remained intact long after the mill itself had become ruinous. This was presumably the residence of Robert Tweedale and his family.

The reference to 'throstle rooms' on the Catley Lane side of the site in 1843 implies that this was the location of the cotton mill. It was presumably located in the rectangular building lying parallel to the west bank of the river. This is not a part of the site which would readily have lent itself to water power, in keeping with which the cotton mill, on Maxim's evidence, was solely steam-powered.

At the south-west corner of the site, the 1844-8 OS map shows a circular gasometer, while the 1864 rate book indicates that the mill's gasworks were to be found on either side of the

river, suggesting that the retort house may have been among the buildings on the east bank. The columns which supported the gasometer are shown on one of the early photographs of the mill, while the site of the gasometer is still evident as a stone-lined circular depression.

The mill's tenterfield, documented from 1823 onwards on the Further Spotland side of the river, is shown on the 1844-8 map to have been located to the north-west of the mill buildings.

Water power was provided to the mill via a leat which may possibly have originally been fed from a weir c 250m to the north. By the mid- to late 19th century, however, it appears to have commenced at a weir situated immediately south of Tonacliffe Mill, c 300m to the north of Broadley Mill, and to have then run along the east bank of the Spodden before twice crossing the river. To the south of the second crossing point, the leat broadened into a reservoir built within a bend of the river, before continuing to the mill.

2.4.2 Broadley Wood Mill

Unlike the other mills within the study area, this site was located not on the Spodden but on a small tributary stream. Its date of construction is not known for certain but was evidently no later than 1818 when a water-powered site is shown here on Greenwood's map of 1818. In the Spotland Poor Rate valuation of 1823, which copies the survey of 1819-20, the mill is listed under Broadley, implying that at this period the two were worked together. In the Land Tax Returns Broadley Wood Mill appears to be first identifiable as a distinct concern in 1824, as a factory occupied by Charles Haigh. Similarly it can first be traced in the trade directories in 1824-5 when Edmund Lord & Co, cotton spinners and manufacturers, are listed here (Table 2).

The name of Charles Haigh was associated with the mill for over forty years. The Spotland Poor Rate valuation of 1834 gives Haigh as the occupant and Hugo Chadwick as the owner of the mill, which is described as comprising the 'scite of mill', 'lodge' and 'little lodge'. Trade directories list Charles Haigh as a cotton spinner at Broadley Wood Mill in 1834 and subsequently name him as a cotton spinner and manufacturer (Table 2). Under Haigh, by 1843 the mill appears to have undergone some expansion, which merited a new description being appended to the valuation of 1834. According to this, the mill now comprised 'Steam power, water power, Cotton mill, wheelrace & engine house, Boiler house, loomshade & Counting house, Warehouses and Cart Shed, Smithy, Gas works, Warping Room & Stable'. In a rate book of 1864 the mill, then owned by John de Heley Chadwick and occupied by Charles Haigh, was described in similar terms, as comprising 'Mill & Power, Engine house, Boiler house & Loomsheds, Counting house, Warehouse, Cartshed & Gasworks, Smithy, Warping Room, Scutching room &c'.

Charles Haigh is still listed at Broadley Wood in 1873 (Table 2). In 1874, however, the mill entered a new phase of occupancy, under the Broadley Wood Mills Spinning and Manufacturing Co Ltd, which in 1897 also bought the site.

This firm is still listed in a trade directory of 1924 but by 1927 was in liquidation and OS mapping of 1928 shows the mill as disused. The buildings had been largely demolished by 1960. Fragments of stone walling survive against the mill dam but the most substantial visible remains are brick and stone engine beds and, in the south-east of the site, a ruined building identified as stables.

1824-5	Edmund Lord & Co, cotton spinners and manufacturers, Broadley-wood & Rudman's Waste	Pigot & Dean, 428
1834	Charles Haigh, cotton spinner, Broadley Wood Mill	Pigot & Co, 528
1838	Charles Haigh, cotton spinner and fustian manufacturer, Broadley Wood	Pigot & Son, 128
1843	Charles Haigh, cotton spinner and manufacturer, Broadley Wood Mill	Slater, 154
1869	Charles Haigh, cotton spinner and manufacturer, Broadley Wood Mill	Slater, 660
1873	Charles Haigh, cotton spinner, Broadley Wood	Kelly, 1818
1876	Broadley Wood Mills Co Ltd	Slater, 583
1885	Broadley Wood Mills Spinning and Manufacturing Co Ltd, Broadley Wood	Worrall, 134
1924	Broadley Wood Spinning and Manufacturing Co Ltd	Kelly, 1691

Table 2: Occupants of Broadley Wood Mill listed in trade directories.

OS mapping shows little alteration to the plan of the mill between 1844-8 and 1890, so that the majority of the components listed in the 1880 mill valuation must have been in existence by that earlier date (Table 3). These included a 'weaving place' which from its considerable size, 134ft by 58ft 10in, was probably a single-storey weaving shed, a type of building which was introduced into the industry in the late 1820s. The 1880 valuation also includes four entries for cotton mills, one described as being of two and a half storeys and the others of two and a quarter storeys, the first of which had been raised in height by 1875 to four storeys. By 1863 the site also included a staircase of three and a half storeys, possibly indicating that then, as now, the site was set on different levels within the narrow valley. The engine house, which must have contained the surviving engine beds, was also of three and a half storeys.

Water power to the mill was provided by damming the tributary stream on which it was located to create a reservoir. From here water was fed directly to the mill by a headrace, while any surplus water was diverted around the south side of the mill in a byewash, still extant.

A small stream of this size would have been of limited potential compared to the Spodden. In keeping with this, Broadley Wood Mill seems to have been the first mill within the study area to have abandoned water power in favour of a total reliance on steam, with this changeover occurring by 1879 when the only power source given for the mill is a 45hp engine (Table 3).

		No of Storeys	Dimensions
1863	Weaving Place	1	134ft 0in x 58ft 10in
	Room under 1st section	1	56ft 0in x 18ft 6in
	" 2nd section	1	43ft 0in x 17ft 7in
	Bottom Room	1	31ft 10in x 17ft 2in
	"	1	49ft 6in x 12ft 0in
	"	1	35ft 7in x 13ft in
	End of Boiler House	1	13ft 0in 9ft 0in
	Gangway End of		10ft 6in x 4ft 6in
	Dust Place	1	12ft 6in x 9ft 0in
	Scutching Place Fireproof	2	30ft 0in x 24ft 0in
	Adjoining Fireproof	1	18ft 2in x 11ft 8in
	Blacksmith's Shop	1	31ft 5in x 15ft 0in

	Retort House Closets Hoist Staircase Cotton Mill " " " Water Wheel Place Engine House Mechanics Shop Chimney	1 3 3 3½ 2½ 2¼ 2¼ 2¼ 3½ 1	20ft 0in x 15ft 3in 3ft 9in x 3ft 3in 3ft 10in x 3ft 7in 13ft 0in x 12ft 4in 60ft 0in x 38ft 10in 41ft 4in x 23ft 3in 41ft 4in x 38ft 10in 38ft 10in x 13ft 3in 44ft 4in x 7ft 0in 41ft 4in x 16ft 6in 39ft 0in x 12ft 9in
1875	Mill raised Scutching Place raised	1½ 1	60ft 4in x 38ft 10in 30ft 0in x 24ft 0in
1879	Condensing Engine 45 Horse		
1863	Office Lumber Store Closets Store & Entrance Stable & Loft Provender Store Gig House Warehouse	1 1 2 1 2 2 1 2	23ft 10in x 16ft 7in 15ft 0in x 10ft 3in 9ft 9in x 6ft 3in 15ft 0in x 11ft 0in 28ft 9in x 20ft 7in 25ft 9in x 19ft 7in 14ft 6in x 16ft 2in 75ft 6in x 31ft 9in

Table 3: 'Broadley Cotton Mills, owners and occupiers Broadley Spinning and Manufacturing Co, (Limited)', details from Spotland Mill Valuation Book 1880.

2.4.3 Broadley Stone Rubbing Mill

From OS mapping this site, situated adjacent to a siding on the railway, is known to have been built by 1890. The earliest known explicit documentary reference is within a rate book for Spotland of 1894, among the entries for the Broadley area of Catley Lane. This names Henry Heys as the owner and occupier of a 'Railway Siding in Norden Local Board District' and of a 'Polishing Mill, Dressing Shed and Engine Power'. The same details are also given in a rate valuation for Norden of the following year, 1895. In addition trade directories of 1890 and 1895 give Broadley Siding as the address of Henry Heys junior.

The site would seem to have been built no earlier than 1884 since it does not appear in a rate book for that year. Nor is it listed in the Spotland mill valuation of 1880, a document which contains details of other industrial sites including rubbing mills. It may be no earlier than 1887, since Henry Heys junior is not named in a directory of that year.

It seems likely that the Broadley stone rubbing mill was an offshoot of the quarrying firm of Henry Heys & Co. In a trade directory of the 1885 this advertised itself as:

> 'Henry Heys & Co; Stone Merchants, Stacksteads, nr. Manchester.
>
> All kind of Landings, Flags, Curbs, Channels and Setts of the Hardest Material, either Self-faced or Polished.

> Facit Quarries, near Rochdale; Hambledon Quarries near Burnley; Brandwood Quarries, Stacksteads'.

The mill itself would have been used to grind such products to a smooth finish.

By 1890 Broadley Siding was the terminus of a mineral railway, comprising a 3ft gauge incline running eastwards from what on mapping of the time was described as an 'old quarry'; from here a northward continuation of the line served quarries at Lower Bagden, Bagden and Middle Bagden on the eastern side of Rooley Moor.

Among the stone rubbing mills listed in the 1880 valuation was Brandwood Stone Mill, near Stacksteads, owned and occupied by Henry Heys, and details of its layout within the valuation provide a useful comparison with the Broadley site. Like the Broadley Rubbing Mill, the Brandwood Mill was situated next to the railway and was provided with its own siding; again like Broadley, it was served by a quarry tramroad. Brandwood Stone Mill was evidently built at the same time as the railway, since the entry within the valuation is dated back to January 1870. It describes the site as comprising three components each of a single storey: a boiler house, measuring 31ft by 11ft; a rubbing mill with '2 tables', measuring 31ft by 61ft; and a 'machine house and office', measuring 17ft by 6ft 9in. The entry for the mill also lists its chimney, and a high pressure engine of 10hp. Brandwood Stone Mill was still being operated by Henry Heys in 1894, when it was listed as a 'Polishing Mill, Power and High Machine Shed, and Engine Power'.

OS mapping shows that the tramroad adjacent to the Broadley Rubbing Mill had been dismantled by 1908, but the stone mill itself would still appear to have been in use, being named as a 'stone works'. By 1928, however, the building is shown as a shell.

From the OS mapping we know the mill to have comprised a rectangular range aligned along the siding platform. The surviving remains here include two stone-lined pits set between a central engine bed and from the mapping it is evident that these were positioned within a building c 30m long which made up the northern half of the site. Abutting this on the south was a narrow bay shown with a chimney at its western end, suggesting that this was a boiler house. The southern part of the range was divided into two equal bays and was possibly the 'dressing shed' listed in the 1890s' rating documents. The OS mapping implies that on the east the building was open-sided with the exception of the engine, which may therefore have been enclosed within its own engine house, and the central bay, suggested as being a boiler house. It seems likely that these open-sided buildings were of a single storey.

2.4.4 Th'Owd Mill I't Thrutch

This is a mill site with a bewildering array of names. The earliest known is Healey Dene Mill, but Healey Mill is also found and by the 19th century Healey Old Mill and simply Old Mill. The present name Th'Owd Mill I't Thrutch may not appear in the written sources before the early 20th century. However, Richard Heape at that time noted that locally 'it was and is always spoken of' in that way, and the name incorporates a dialect word for the valley bottom which is attested from at least the early 19th century when it appears in John Corry's history of Lancashire (see below).

Along with Broadley Mill, this appears to represent the earliest mill site within the study area. According to John Corry,

> 'The ancient corn mill for the hamlet of Healey would be placed as usual, near the chief mansion of the hamlet; and immediately beneath the Hall, below the Thrust and near the Spaw, is a natural fall of water from the rock, sufficiently powerful for modern machinery, therefore more than enough for the moderate means of our frugal

> ancestors. From the ancient "Grist-yate" by the Rochdale Road, a winding horse-way (paved with stones set on edge) led down the steep of the bank, and pointed to this sequestered spot where the first water corn-mill in Healey stood for ages. But after the family moved to Ridware, this ancient corn-mill was converted, since 1636, into a fulling mill, and its place for grinding corn supplied by another higher up the stream in Healey, though usually called Broadley Mill, because held with the Broadley Estate. And the above statement is agreeable, not only to the usual course of events, but to the decided opinion and belief (frequently expressed) of the late Robert Entwisle, Esq, who died in 1778 having been born in 1692; whose deliberate and repeated assertion, partly from his own observation, and partly from that of his father and grandfather, who must have passed and repassed so frequently between Levengreave and Foxholes, may be received as undoubted authority, and proof sufficient that he felt himself well assured of the fact'.

Corry also asserts that this was the earliest mill in Healey:

> 'The River Spodden, which now keeps so many fulling mills and engines in almost perpetual motion (but not a single one grinding corn) formerly turned only one solitary water-corn-mill in Heley, for the supply of the hamlet in feudal ages; which mill was scituate near the Hall'.

Corry's starting point for his discussion of the origins of this mill is a reference to the 'attachment of a damme of a corn-mill' in a document of 1479 which he states to have been connected with Jordan Chadwick of Healey. 'Attachment' refers to the fixing of a weir or dam on a bank of a watercourse, an issue which was often the subject of formal agreement when one of the banks was not the property of the owner of the mill.

Despite Corry's assertion of the antiquity of Healey Dene Mill, the Rochdale Survey of 1626, while noting corn and fulling mills in other parts of the parish, makes no mention of a mill in the hamlet of Healey. If Jordan Chadwick had a corn mill on the Healey Hall Estate in 1479, the silence of the Rochdale Survey suggests that it had gone out of use by 1626 and that the use of the site as a fulling mill followed a period of abandonment. It should also be noted that Corry himself does not specify that the corn mill referred to in 1479 lay in Healey. On the other hand, the memory of a corn mill here could well have been part of the family tradition of the Entwisles which Corry cites as a source.

Whether there was an earlier corn mill here or not, other evidence supports a date for the foundation of the fulling mill in the late 17th century. In the early 20th century Richard Heape of Healey Hall had a stone at the mill inscribed with 'The Owd Mill ut bottom o' th' Thrutch was built in the year 1676. R Heape'. A sketch plan and elevation of the mill by Maxim show that this stone was built into the mill wall along the eastern side of the Spodden. He also reports that by June 1948 it had fallen into the river.

The basis for Heape's date for the mill appears to have been a long rambling Latin inscription set up by Charles Chadwick at Healey Hall in 1774, in which he recorded a number of details about himself, his family and his estates. It includes mention of rents from a fulling mill on the Spodden in Healey hamlet (probably Broadley Mill), a corn mill on the Roch in Hundersfield, and a fulling mill 'opposite Broadley', which the inscription goes on to describe as 'a Mill in Healey so called [but] in more recent times spoken of as in Healey Dell – built in 1676 by a family of old time'. The last reference is probably to the construction of the mill by a tenant of the Chadwicks, with the date and the name of that tenant perhaps being derived from a deed within the family muniments or an original datestone at the mill itself.

The earliest surviving contemporary reference to the mill may possibly be found in the Poor Rate Assessment compiled for Spotland in 1750. In this Joshua Taylor was listed for 'Healey Hall & Miln', each of which he must have occupied as the tenant of the Chadwicks. In the Spotland Poor Rate Books for 1768 and 1772 this is probably the mill listed in a group of properties owned by John Chadwick and occupied by Mr James Ashton, comprising 'House, Land, Fulling Mill and Cottages'. In the rate book for 1776 the mill is mentioned by name in a list of properties occupied by John Crossley and James Turner and consisting of 'the Birches Farm and Healey Dayn Fulling Mill, the two lower Henden Tenter fields'. The same entry is found in the rate books for 1777 and 1778-9, while in the rate book for 1780 we find 'Healey deyn fulling mill, Birches farm and Lower Ending Tenterfields' owned by John Chadwick and occupied by William Kay and John Roades. The Land Tax Returns for the same year, 1780, imply that the mill was no longer leased out. While one entry lists 'William Kay and Rhodes for Birches House and Land', another names John Chadwick as owning and occupying 'Healey Hall, Land and Mill and new House and Smithy'. However, in 1782 we find William Kay as the occupant of 'Birches House Land and Healey Mill', a property for which he was still listed in 1804.

On the evidence of the Poor Rate Books and Land Tax Returns it is clear that from at least the 1770s the mill was leased to the tenants of Birches, just as in 1750 the tenant of the same place appears to have leased Broadley Mill (see above). That this arrangement seems to have come to an end in 1804 is consistent with the statement of John Graham that Henry Sandiford & Segar began printing at Healey Hall in that same year.

In December 1813 Healey Dene Mill was included within the land associated with Healey Hall which was leased for thirty years by Charles Chadwick to Robert Leach, Jacob Tweedale and John Tweedale. That document confirms that prior to that date the site had been used as a fulling mill but shows that it was then unoccupied and in a state of disrepair, describing it as,

> 'All that old fulling mill edifice or building commonly called Healey Dene Mill with the dam goits wheelrace cawl weir and all the other appurtenances thereto belonging or appertaining and a small narrow slip of ground situated on the opposite side of the river there, to which the said cawl or weir of the said old mill is tied, which said last unoccupied premises have for some back ceased to be used as a fulling mill in consequence of which and for want or repairs the same or some part thereof are or is in a ruinous state but to be rebuilt and otherwise improved in the manner hereinafter mentioned'.

No evidence has been found to show that Henry Sandiford & Co made use of the fulling mill during their tenure of the estate, and it thus seems likely that the mill had been disused since the departure of John Kay some nine years previously.

The 1813 lease is of further importance in tracing the history of the mill in that it points to a major rebuilding of the site shortly after that date. According to the terms of the agreement Robert Leach, Jacob Tweedale and John Tweedale,

> 'shall and will at their own expense forthwith begin to take down the walls and other materials composing the said old mill and with all convenient speed shall and will afterwards build and finish another mill edifice or building of such size and dimensions and in such manner as that the same shall be sufficient for the holding and working therein of four pair of fulling stocks, one perching mill (at the least) and shall and will affix to such new intended mill a good and sufficient water wheel'.

In the 1823 Spotland Poor Rate valuation the fulling mill is listed under the heading of Healey Hall as the 'Higher Mill, Waterfall &c', owned by Charles Chadwick and occupied by Leach & Tweedale. In the valuation of 1834 it appears under the entry for Healey Bottoms, owned by Hugo Chadwick and occupied by Leach Tweedale & Co. Thus within that later valuation the reference to a 'Fulling Mill & water & tenters' is almost certainly to the Th'Owd Mill I't Thrutch, as is the reference, immediately following this, to 'Brimstone stove, walching room, blue room & spring lodge'.

The mill appears to have remained in use as a fulling mill until its closure in the late 19th century. Thus in 1847 the site is listed as Healey Hall Mill, a fulling mill occupied by Messrs J Tweedale & Son, while in the previous year, the plan and schedule accompanying the lease of mining rights describes the site as 'Healey Dean, Fulling Mill Buildings, Watercourse and Road thereto'. It is presumably the Old Mill which is listed in trade directories of the 1860s and 1870s as occupied by Jacob Tweedale & Sons, flannel manufacturers and fullers, along with Healey Bottoms Mill and Tonacliffe Mill. In the Spotland mill valuation of 1880 it appears as Healey Hall Fulling Mill, occupied by Messrs Tweedale.

The close association between Th'Owd Mill I't Thrutch and Healey Bottoms Mill was described by Maxim, who noted after being woven at Healey Bottoms Mill, cloth was

> 'taken to the fulling mill higher up the stream and treated in "mill bottom" driving stocks by another water wheel. Then sulphur stoves and bleaching. Then carted to tenterfields above Heald, brought in over passageway and finished and packed into house behind Healey Hall'.

The OS map of 1844-8 shows a substantial tenterfield on the high ground on the east side of Shawclough Road opposite Healey Hall. This is evidently the site to which Maxim refers, with later OS mapping showing Heald Farm (originally known as Healey Cottage) below its southern end. Maxim's evidence suggests that from this tenterfield an overhead gantry, not depicted on the mapping, led directly over Shawclough Road to Healey Hall where other evidence shows there to have been a drying stove and warehousing.

The latest evidence found for the use of Th'Owd Mill I't Thrutch dates from 1882 when Jacob Tweedale & Sons were listed as fulling millers at Healey Hall. In that year, however, the firm closed and the working life of the fulling mill appears to have come to an end. In 1890 OS mapping shows the site as a ruin.

Following the end of its use as a fulling mill, Th'Owd Mill I't Thrutch became a new focus of attention as a picturesque ruin. Maxim, writing at a time when the mill was still partly standing as a shell, noted that its preservation was largely due to its secluded location and the antiquarian interest shown by Richard Heape of Healey Hall. Since Heape's time, the free- standing walls having almost entirely collapsed but significant remains still survive.

The 1844-8 OS map and the plan accompanying the 1846 mining lease show the mill site comprising two main components, also evident on late 19th-century illustrations of the site. The more easterly of these was a V-shaped range, comprising a main block aligned alongside the Spodden and, adjoining this on the north-east, a wing spanning the river. Maxim reports that this wing was carried on three arches, and the two which supported its external walls still stand today. Early photographs show two storeys rising above those arches, and the adjoining riverside wall of the main block being of a similar height. Maxim's notes on the site indicate that the partition wall between the two parts of the building was broken at ground level by a large arched opening, also known from the photographic evidence. The stone inscribed with the date 1676 was set into the north side of this arch; to its south, a bearing box was set into the wall at both ground-floor and first-floor level, through which power was

transmitted to the wing over the river. The wheelhouse was situated at the eastern end of the main block, where an 1877 watercolour shows it partly contained in a projecting outshut. This illustration also depicts the roof-line of the main block as running parallel with its eastern wall, with the ridge of the wing over the river following the same axis but at a lower height. The photographic evidence is consistent with this arrangement in that it shows the riverside walls of the building to have been gabled. The wheelpit was thus set in the usual position, i.e. at a right angle to the main axis of the mill. The main range of this building can be identified with the two and half- storey fulling mill listed in the 1880 Spotland mill valuation, while the wing over the river appears to have been the two-storey 'perching room' (Table 4).

To the west of this mill building was the other main component of the site shown on the 1840s mapping. This was a rectangular range aligned alongside the river. The late 19th-century illustrations show it rising above the fulling mill building, suggesting that it was of at least two and possibly of three storeys in height. The 1880 Spotland mill valuation suggests that one of the upper floors was used for fulling, with a 'blue room' in the lower part of the building. The site of the eastern end of this building is now marked by the remains of three stone vats, which seem to have been the features described by Maxim as 'blue pits'. A fourth vat lies to the east within what would have been the north-west corner of the main fulling mill building but since this vat overhangs the river it has very probably been displaced. To the west of these vats Maxim noted four arched 'sulphur stoves', which he described as 'arched structures of dressed stone 6ft wide and 9ft high close set, and two have collapsed, whilst a third now has a dangerous hole in the roof'. Remains of the two westernmost of these chambers are still visible. Although their barrel-vaulted roofs have now totally collapsed, their outline is evident in the surviving masonry. On the mapping evidence, these two chambers were located just beyond the western end of the two- or three storey rectangular range, and this arrangement is confirmed by a photograph of 1910. It shows the two western chambers with their vaulted roofs still in place and to the east of this the shell of a third chamber, at this date open to the sky but with evidence of vaulting in its southern wall. All three were each entered by a doorway facing the river but significantly the eastern chamber appears to have been larger while between it and its western neighbours the northern external wall showed a vertical straight joint. It seems, therefore, that the eastern chamber formed part of the original rectangular building, while the two adjacent chambers were later additions. On the cartographic evidence the two western chambers would seem to be no earlier than the mid-1840s, while the 1880 Spotland mill valuation implies that they were no later than 1863 (Table 4).

In the south-west of the site are the remains of a small reservoir formed by a polygonal wall or embankment revetted with stone, and fed from a stone arched culvert in the slope above. This reservoir is clearly shown in its present form on the OS map of 1890 but a similar feature seems to be indicated on the mapping of 1844-8. The reservoir was possibly the 'spring lodge' listed in 1834.

Much, if indeed not all, of the complex shown in the 1840s, and also recorded in the 1834 Poor Rate valuation, can be assumed to date back to the rebuilding of the site in 1813. It should be added that Maxim suggested that the portion built over the river was no earlier than a great flood in July 1838 which is known to have caused damage to a number of mills. The present assessment has found no evidence to support this. Moreover, this wing seems to have been an integral part of the plan of the fulling mill, so that if the known structure here did postdate that flood it is likely to have been a replacement of an earlier building of 1813.

A third major component of the site comprised a three-storey building situated by the roadway leading down to the mill. Maxim described it as the mill's warehouse and office,

and noted that a footbridge once connected it to hillside steps leading to Ending. Its date is uncertain. It is clearly shown on OS mapping of 1890, and presumably predated the demise of the fulling mill in the early 1880s. Although a building is shown on this approximate site on the OS map of 1844-8, this appears to have been smaller than the known warehouse building. It is not explicitly named in the 1880 mill valuation but entries within that document suggest that it was built by 1863, when its third floor was used for storage, one half of the remainder of the building served as a cottage, and the other half contained a millwrights shop on the ground floor and a store on the first (Table 4).

The provision of accommodation at the mill is also evident from the census returns. Thus the Old Mill is listed in 1851 as the place of residence of two households, headed by Samuel Spencer, fuller, and Thomas Hartley, fulling finisher. Two are again listed in 1861, with the family of Richard Child, gardener, having now replaced the Spencers. Thomas Hartley was still living at the Old Mill in 1871, when he is described as a fulling miller, and this is also given as the place of residence of no fewer than six other families containing seventeen individuals. In 1891 the census names Healey Hall Old Mill but no occupants are listed.

A fourth major element of the site is more poorly known. This was a polygonal structure situated on the south side of the road which runs past the mill, opposite to the site entrance. On the cartographic evidence it was built after 1844-8. No photographs or other illustrations of the building are known and there are only scant visible remains, which may include evidence of a stone vat. The precise function of the building is uncertain but one possibility is that this was the two-storey 'dry and tenter house' which on the evidence of the 1880 mill valuation was added to the site by 1865 (Table 4).

In 1847 it was reported that the mill was powered by a waterwheel of 48hp; no steam engine was listed. The wheelpit is still visible on the eastern side of the site and measures c 1.5m wide and c 9m long. The headrace tunnel is cut through the bedrock with ashlar coursing above forming this end of the wheelpit; the remainder of the wheelpit is lined with a rougher coursing and includes a central housing for the axle. From the height of the headrace the wheel must have been of the low breast-shot type, with the water filling the wheel's buckets below the level of the axle. Maxim noted that there were indications of a wheel '12ft in diameter at least', but since wheelpits typically closely corresponded to the size of the wheel, its dimensions may have been closer to 30ft in diameter and 5ft in width.

Water was brought to the mill along a relatively short leat, evidently running in a tunnel and leading off a weir situated c 40m upstream. This tunnel is likely to date from no later than the rebuilding of the mill in 1813. Prior to that time there may have been a different arrangement, for running alongside the river between the weir and the mill is a rock ledge which could have originally carried the leat in a timber launder.

The 1880 Spotland mill valuation shows that steam power was installed at the site by 1863, when a boiler house and chimney were listed. The late 19th-century illustrations of the mill seem to place the chimney against the eastern elevation of the western rectangular range. However, an early photograph shows that the chimney was still standing after the mill itself had fallen into ruin and this may favour the chimney being a feature shown on the map of 1890 roughly at the south-west corner of the main fulling mill building. From the 1880 mill valuation it appears that the boiler house was originally a single-storey structure which was built over by 1865 (Table 4). It was possibly located on the south side of the main fulling mill, where the late 19th-century illustrations show a structure rising to the height of the roof-line of that building. In 1865 the engine provided a meagre 2hp. No engine house is mentioned in the 1880 valuation and this small engine was presumably installed within one

of the other buildings. By 1880 steam power had been increased to 9hp, but the main driving force was still the mill's waterwheel, then estimated to provide 20hp.

		No of Storeys	Dimensions
1863	Brimstone Stove	1	20ft 6in x 14ft 9in
	"	1	20ft 9in x 18ft 8in
	Blue House	1	36ft 5in x 22ft 11in
	Fulling Mill	1	36ft 9in x 19ft 6in
	Perching Room	2	24ft 4in x 24ft 4in
	Fulling Mill	2½	44ft 10in x 22ft 9in
	"	2½	44ft 0in x 17ft 4in
	Fulling Mill Projection	1	9ft 0in x 6ft 6in
	Boiler House	1	24ft 7in x 11ft 0in
	Fireing Up and Loading Shed	1	18ft 3in x 11ft 0in
	Millwrights Shop	1	24ft 9in x 18ft 0in
	Store Room	1	25ft 11in x 17ft 5in
	Store Room over Cottage	1	52ft 6in x 17ft 8in
	Chimney		
1865	New Dry & Tenter House	2	49ft 6in x 24ft 3in
	Room over Boiler House	1	19ft 0in x 23ft 0in
	High Pressure Engine 2 Horse		
1880	High Pressure Engine 9 Horse		
	Water Wheel 20 Horse		

Table 4: 'Healey Hall Fulling Mill, occupiers Messrs Tweedale' (Th'Owd Mill I't Thrutch), details from Spotland Mill Valuation Book 1880.

3. Methodology

3.1 After initial clearance of vegetation the sites were surveyed using a Total Station Theodolite and Datalogger, based on a divorced control grid established at the beginning of the fieldwork. The data was downloaded to a PC and initial scale plans produced using a CA package.

3.2 The initial survey plans were used as a base for more detailed hand drawing, using tapes and draughting film. Along with the hand drawing, height measurements and descriptions were annotated onto the drawings and further descriptions and illustrative sketches made in a site notebook. These were used to produce the final field drawings.

3.3 The field drawings were scanned into a digital format, rectified on computer and digitised into a CAD package which then allowed them to be corrected onto the National Grid and overlain with the existing Ordnance Survey mapping.

3.4 Identified elements of each site were photographed in digital format. These photographs are included on a CD attached to this report [the photographs can also be accessed by clicking on the link assigned to each "Photo No:" in the ***Site Gazetteer***], and plans showing the directions from which the photographs were taken are included in the report as Figs 5-8.

4. Survey Results: Site Gazetteer

4.1 Introduction

4.1.1 The following gazetteer lists describes the component features of the four site which were the subject of the measured survey.

4.1.2 Each feature is identified by a number, cross-referenced to the measured site plans (Figs 1-4), and by its general type (e.g. drystone wall). These are followed by: an assessment of its condition; a description of such details as its dimensions, method of construction, and its place within the site based on the evidence collected by the desk-based assessment; its date, again based on the desk-based assessment; and finally the identifying number(s) of the photograph(s) of the features, cross-referenced to the digital photographic archive which accompanies the present report.

4.2 Broadley Mill

BM1 Condition: Description: Date: Photo No:	Drystone wall Very good A section of drystone walling set into the slope. It runs north/south for 5.5m with a 4m eastern return at the south and a 5m eastern return at the north. The walls are between 0.6m and 1.2m wide and stand to 0.4m in height at the south-western corner, 0.9m in height at the north-west, 1.1m at the south-east and 1.3m at the south-west. The drystone consists of varying sized stones in a random coursing. It is very prominent, well-defined and somewhat overgrown although not earthfast. No floor surface is visible as it is covered in stone tumble. Roughly corresponds with west wall of building shown on the 1844-8 map. Pre-1848 BM 3
BM2 Condition: Description: Date: Photo No:	Drystone revetment Moderate A length of drystone revetment wall which runs east for 2.7m from the south-eastern end of BM1 and returns south for 10m where it meets BM4. Along this length are two indentations to the west, possibly acting as a primitive type of buttressing. It survives to 0.1m in height and has varying sized stones in a random coursing. It is non- prominent, poorly defined and is overgrown but not earthfast, although it is becoming so. Corresponds with west wall of building shown on the 1844-8 map. Pre-1848 BM 4
BM3 Condition: Description: Date: Photo No:	Depression Poor A roughly 30m by 10m north/south depression with a 12m long arm running north-west. It is defined by earthfast overgrown tumble slopes, c 0.5m deep, and is very pitted and uneven. It may represent the remains of a building but none is shown here on the OS mapping and the northern side may be build up for the footpath. -

BM4	Drystone walling
Condition:	Moderate to poor
Description:	A length of drystone revetment walling with additional walling forming a room. The revetment is in moderate condition and runs south for 3m from the southern end of BM2, returns east for 2.3m and then turns south again for 4.7m where it meets wall BM11. This revetment is of randomly coursed laminar stone and stand to between 0.6m and 1.2m in height. It is prominent and not earthfast. At the northern end of the revetment a section of drystone wall runs east for 2m with a further 1.5m stretch 0.3m beyond it, seeming to form a room with the western wall formed by the revetment. These walls stand to between 0.2m and 0.4m in height, are c 0.4m wide and constructed from varying sized stones in a random coursing. Along the western edge of the room formed by the drystone walls a stretch of concrete is visible at the base. These are in poor condition and earthfast, although somewhat prominent and relatively well defined. Partly corresponds with western wall and interior of a building shown on the 1844-8 map, but the southern half of the wall deviates eastwards from the alignment on the mapping.
Date:	?Pre-1848
Photo No:	BM 5, BM 6, BM 7
BM5	Mound
Condition:	Poor
Description:	A roughly 5m diameter 0.5m high mound of prominent, well defined earthfast drystone tumble.
Date:	
Photo No:	BM 1
BM6	Drystone wall
Condition:	Good
Description:	A 12m long and 1.9m high stretch of drystone wall running north/south which defines part of the western side of depression BM8. It is prominent and overgrown but not earthfast. It is constructed from varying sized laminar stone in a random coursing. Corresponds with western wall of a building shown on the 1844-8 map.
Date:	Pre-1848
Photo No:	BM 2
BM7	River wall
Condition:	Very good
Description:	The western drystone revetment wall of the River Spodden. It runs from the bridge (BM34) at the north to a bend in the river at the south. It is constructed from randomly coursed stone of varying sizes.
Date:	?Pre-1848
Photo No:	BM 25

BM8 Condition: Description: Date: Photo No:	Depression Poor A 26m by 10m north/south depression up to 2m deep. Part of the western edge is defined by wall BM6. The base is heavily pitted and the whole feature overgrown and earthfast, although very prominent and well defined. It may represent the basement of a former building. Corresponds in width and northern extent with a building shown on the 1844-8 map Pre-1848 BM 1
BM9 Condition: Description: Date: Photo No:	Drystone wall Good A 4.5m long and 0.6m high length of drystone revetment wall. It is not prominent and is overgrown but not earthfast. Immediately parallel to it on the south side is an upright concrete slab. BM 8
BM10 Condition: Description: Date: Photo No:	Stone wall Poor A short length of stone walling running east/west. It is 2.6m long by 0.6m wide and survives to 0.3m high. It is non-prominent, poorly defined and earthfast. Corresponds with southern wall of a building post-dating the 1844-8 map. 1844- c 1880 BM 10
BM11 Condition: Description: Date: Photo No:	Drystone wall Poor A drystone wall which runs east from wall BM9 for 6.5m and then returns south for 7m. It survives to 0.3m wide, 0.3m in height and is somewhat prominent, relatively well defined and earthfast. Corresponds with southern wall of a building post-dating the 1844-8 map. 1844- c 1880 BM 9
BM12 Condition: Description: Date: Photo No:	Revetment and platform Moderate A 13.5m by 5.5m flat platform terraced into the slope with drystone revetment walling cut into the slope along the western and southern sides which survives to between 0.4m and 0.7m in height. The eastern side of the platform has been built up by 0.5m with drystone revetment walling below it. The northern and north-eastern sides are formed by wall BM11. The platform is relatively even, well defined and earthfast and is overgrown. The northern half of the platform coincides with an enclosure shown on the 1890 map. BM 11

BM13 Condition: Description: Date: Photo No:	Revetment wall Moderate A 22m section of drystone revetment wall surviving to 0.5m in height. It is prominent and not earthfast. -
BM14 Condition: Description: Date: Photo No:	Drystone wall Moderate A section of drystone wall 2.2m east/west with a 1.4m southern return. It is c 0.6m wide and survives to 0.7m high. It is prominent, poorly defined and earthfast. Not shown on the OS mapping. BM 15
BM15 Condition: Description: Date: Photo No:	Drystone wall Moderate An 11m long and 0.5m wide section of east/west drystone wall with a short 0.6m spur running south from it. It survives to 0.2m in height with a small section on the centre, around a tree, standing to nearly 1m. It is prominent, poorly defined and earthfast. Corresponds with width of building shown on the 1844-8 map. Pre-1848 BM 12
BM16 Condition: Description: Date: Photo No:	Drystone wall Very poor A possible 7m long and 0.5m wide stretch of drystone walling running north/south. It is non-prominent, poorly defined, earthfast and heavily overgrown and survives to a maximum of 0.2m in height. At northern end corresponds with western wall of building shown on the 1844-8 map, but deviates to south suggesting the visible remains may be collapse Pre-1848 -
BM17 Condition: Description: Date: Photo No:	Drystone walling Very poor A short section of drystone walling running east/west for 2.4m with a 1.5m southern return at the western end. It is 0.5m wide and survives to c 0.4m high. It is non-prominent, poorly defined and earthfast. Lies within a building shown on the 1844-8 map. BM 13

BM18 Condition: Description: Date: Photo No:	Drystone walling Very poor A 6.5m long section of drystone walling running north/south with a 2.2m eastern return at the northern end and a 0.8m eastern return at the southern end. It is 0.5m wide, 0.3m high at the southern end, 0.7m high at the northern end, non-prominent, poorly defined and earthfast. Corresponds with western wall of a building shown on the 1844-8 map. Pre-1848 BM 4
BM19 Condition: Description: Date: Photo No:	Drystone walling Moderate A section of drystone walling running east/west for 4.5m and returning south for 3.5m at the eastern end. It is 0.5m wide, survives to between 0.5 and 0.8m high, is prominent, well defined and earthfast. Corresponds with north and east walls of a building shown on the 1844-8 map. Pre-1848 BM 14
BM20 Condition: Description: Date: Photo No:	Drystone walling Moderate A section of drystone walling running east/west for 6.5m and returning north for 3.5m at its eastern end. It is 0.5m wide, survives to between 0.3 and 0.4m high, is somewhat prominent and earthfast. Corresponds with south and east walls of a building shown on the 1844-8 map. Pre-1848 BM 14
BM21 Condition: Description: Date: Photo No:	Drystone walling Good A 7m long and 0.5m wide section of drystone walling surviving to 0.8m in height which runs north/south along the edge of the river wall. It is prominent, well defined and semi-earthfast, constructed from varying sized stones in a random coursing. It is keyed into the north-east corner of BM23 and is abutted by BM22. Probably a boundary wall alongside the river. ?Pre-1844 BM 16
BM22 Condition: Description: Date: Photo No:	Drystone walling Poor A section of drystone walling which abuts wall BM21. It runs west for 2.5m and then returns south for 2m where it abuts the northern side of BM23. It is c 0.3m wide and survives to c 0.2m. It is non-prominent, relatively well defined and earthfast. Appears not to be shown on OS mapping. BM 16

BM23 Condition: Description: Date: Photo No:	Drystone walling Good Sections of drystone walling forming a rectangle. The northern wall runs west from the river wall for 4m and is abutted by wall BM22. Here it returns south for 4.2m where there is a 0.6m gap, and then the walling turns west for 4m where it meets the river wall. There is no eastern wall evident although it is not possible to tell whether this is because the complex was open at the eastern side or whether a wall has not survived. The walls survive to 0.2m to 0.4m in height, are 0.6m wide and are prominent, well defined and semi-earthfast. Corresponds with a building shown on the 1844-8 map. Pre-1844 BM 17
BM24 Condition: Description: Date: Photo No:	Drystone walling Good A 6m long north/south section of drystone revetment walling standing to 1.8m in height and constructed from varying sized stone blocks in a random coursing. Two sections of wall run east from this at the north and south. The northern stretch of wall is 3m long, 0.5m wide and 0.4m high. The southern stretch of walling is 0.9m long, 0.7m wide and 0.3m high. These two stretches are prominent and earthfast. Corresponds with boundary wall shown on the 1890 which seems to have defined a small yard to the rear of a building standing immediately to the east. 1844-1882 BM 19
BM25 Condition: Description: Date: Photo No:	Linear depression Moderate A 5.1m long and 0.4m wide linear depression 0.3m deep which runs north/south. It is non-prominent, poorly defined and earthfast. Corresponds with riverside wall visible on c 1870 photograph of the mill (Arrowsmith 2004, Ill 122). Pre- c 1870 -
BM26 Condition: Description: Date: Photo No:	Mound Poor A 5m by 3m 0.3m high mound of well defined earthfast drystone tumble. Sited in an area shown on the OS maps as not built upon. BM 23

BM27 Condition: Description: Date: Photo No:	Drystone walling Moderate Drystone walls running forming south, west and north-west sides of U-shaped arrangement. The north-western wall runs west for 4.2m, returns south for 4.5m and then returns east for 8m. The walls are 0.5m wide and c 0.6m high, somewhat prominent, relatively well defined and earthfast. The interior of these walls is full of drystone tumble. The south wall roughly corresponds with the south wall of a building shown on the 1890 map and probably on the 1844-8 map. The west wall closely corresponds with the southern half of the western wall of that building, while the northern wall lies within that building and may represent an internal division. A c 1870 photograph of the mill shows this building to have been of two storeys with a gabled southern elevation (Arrowsmith 2004, Ill 122). ? Pre-1848 BM 18
BM28 Condition: Description: Date: Photo No:	Drystone wall Very poor A 4.2m long east/west stretch of earthfast drystone walling, 0.5m wide and surviving to 0.55m in height. It is prominent, relatively well defined and semi-earthfast. Corresponds with a boundary wall shown on 1890 map and visible on c 1870 photograph of the mill (Arrowsmith 2004, Ill 122). Pre- c 1870 BM 23
BM29 Condition: Description: Date: Photo No:	Drystone wall Poor A 2.2m long and 0.25m wide stretch of drystone walling running east/west and surviving to 0.2m in height. Non-prominent, poorly defined and earthfast. Roughly corresponds with small projection against south elevation of building shown on the 1890 map. A c 1870 photograph, however, shows only a small garden plot here. ?c 1870-1882 -
BM30 Condition: Description: Date: Photo No:	Revetment wall Good A c 2m high stretch of drystone revetment wall running south from wall BM24 for 5.8m and then returning west for 1.75m where it is keyed into revetment wall BM33. It is very prominent and constructed from varying sized stone blocks in a random coursing. BM 19, BM 22

BM31 Condition: Description: Date: Photo No:	Stone gatepost Very good A 0.6m by 0.3m stone gatepost standing to 1.1m in height. It has three 100mm diameter holes drilled through it, one above the other along its centre line. Probably displaced from original position. The OS mapping shows no boundary wall or fence at this point, but possibly the same gatepost is shown on a c 1870 photograph set within boundary wall BWM28 (Arrowsmith 2004, Ill 122). c 1844-1870 BM 20
BM32 Condition: Description: Date: Photo No:	Gasometer base Very good A 7.9m diameter circular base of a gasometer. It is becoming overgrown but is still prominent. The interior is silted up but three courses of drystone walling are visible around its edges. The gasometer is shown on the map of 1844-8 and documentary evidence suggests that it was built between 1834 and 1843. The upper part of the gasometer, including three supporting columns is visible in a c 1870 photograph (Arrowsmith 2004, Ill 122). c 1834-1843 BM 20
BM33 Condition: Description: Date: Photo No:	Revetment wall Very good Drystone revetment wall running south from wall BM30 and turning southeast, following the slope to the river edge. It is c 3m high in its centre and goes to c 2m high at the north where it is keyed into BM30. It angles downwards as it turns south-east becoming lower until it ends at the river edge. It is constructed from varying sized stones in a random coursing and is highly prominent. Probably contemporary with construction of the railway and Broadley Station. c 1865-1870 BM 21, BM 22
BM34 Condition: Description: Date: Photo No:	Bridge Very good A stone bridge crossing the river at the northern end of the site. ? Late 18th/ early 19th century. -
BM35 Condition: Description Date: Photo No:	River wall Very good Drystone river wall constructed from varying sized stone blocks in a random coursing. It runs south from the bridge, turns east at the southern end of the site and then then turns south again, following the path of the river. It is 1.8m high above the water level. ?Pre-1848 BM 24

BM36 Condition: Description: Date: Photo No:	Drystone wall Very good A 14m long by 0.6m wide east/west stretch of drystone walling standing to 1.1m in height. It is constructed from varying sized stone blocks in a random coursing and is very prominent. Not shown on the 1964 map. Post-dates the 1928 map which shows the line of this wall partly occupied by a building on a distinctly different orientation. Post-1928 BM 26
BM37 Condition: Description: Date: Photo No:	Drystone wall Moderate A 1.7m long east/west stretch of drystone wall, 0.4m wide and 0.45m high. It is prominent, well defined and semi-earthfast. It is abutted by wall BM38. BM 27
BM38 Condition: Description: Date: Photo No:	Drystone wall Moderate An 8.2m long section of drystone walling running north/south along the edge of the river. It is 0.6m wide, 0.45m high at the northern end and 1m high at the south, prominent, well defined and semi-earthfast. It abuts BM37 and is abutted by BM39. BM 27
BM39 Condition: Description: Date: Photo No:	Drystone wall Moderate Drystone walling forming a room. It abuts wall BM38 at its western side and runs east for 6.2m where it returns south for 3.8m and returns again west for 5m. At this point is a gap of 1m between the end of the wall and BM38 which may be an entrance with an angled stone step. The walls are 0.4m wide and stand 0.2m high externally. The room is basemented and, although full of rubble, can be observed to a depth of at least 1.2m on the interior. The walls are prominent, well defined and semi-earthfast. Not shown on OS mapping. BM 28
BM40 Condition: Description: Date: Photo No:	Revetment wall Good Drystone revetment walling which runs east for 4m, returns south for 3.8m and turns east again for 1.5m where it abuts wall BM42 The walling slopes upward from 0.1m high at the west to 0.6m high at the southern return. It is prominent and non-earthfast. Not shown on OS mapping. BM 33

BM41 Condition: Description: Date: Photo No:	Drystone wall Good A 3.6m long stretch of drystone wall which sits above revetment BM40. It runs north from the eastern edge of BM40 and the northern end of BM42. It is 0.3m wide, 1.1m high and is prominent, well defined and non-earthfast. Not shown on OS mapping. BM 33
BM42 Condition: Description: Date: Photo No:	Revetment wall Good A stretch of drystone revetment wall which is abutted by BM40 and itself abuts BM43. It runs south 5.5m from the southern end of wall BM41 and then returns east 4.5m where it abuts BM43. It stands to 0.6m in height and is prominent and non-earthfast. Not shown on OS mapping. BM 34
BM43 Condition: Description: Date: Photo No:	Revetment wall Good Drystone revetment walling forming the eastern side of the site with the footpath running above it. It is constructed from varying sized stone blocks in a random coursing and survives to a maximum height of c 3.5m. BM 34, BM 35, BM 39, BM 40
BM44 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous section of drystone walling which appears to abut the south-eastern corner of BM39. It runs south for 3.5m and then turns east for 11m where it disappears into heavy vegetation. It is c 0.5m wide and survives to c 0.12m high. It is non-prominent, poorly defined and earthfast. Not shown on the OS mapping and the site is straddled by a building shown on the 1890 map. ?Post-1890 BM 29
BM45 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous section of drystone walling which appears to abut the corner of wall BM44. It runs south for 5.1m, is 0.4m wide and 0.12m high. It is non-prominent, very poorly defined and earthfast. Lies within area of building shown on the 1844-8 map but could be later boundary wall. BM 29

BM46 Condition: Description: Date: Photo No:	Drystone wall Moderate A 4.7m long stretch of drystone walling running north/south along the edge of the river. It is 0.4m wide and survives to between 0.4m and 0.8m in height. It is prominent, well defined and semi-earthfast. Corresponds with part of the western wall of a building shown on the 1844-8 map, but might also be later boundary wall alongside the river. BM 30
BM47 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous stretch of drystone walling surviving to 0.1m in high. It runs east from the edge of the river for 8m and then gradually curves northwards. It then runs north for c 20m where it returns east for 9m, parallel to BM44, and then returns south for 6m where it appears to end. It is non-prominent, poorly defined and earthfast. Not shown on OS mapping, although its course very roughly corresponds in part with a building shown on the 1844-8 map. BM 31, BM 32, BM 36
BM48 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous stretch of drystone wall curving north-west for 6m from wall BM47, which it appears to abut. It is 0.4m wide and 0.1m high and is non-prominent, poorly defined and earthfast. Not shown on OS mapping. On the 1890 map the site lies within a building. BM 36, BM 37
BM49 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous stretch of drystone walling in the south-western part of the site which runs north for c 18m and then gradually curves eastwards where it disappears into heavy vegetation. It is 0.4m wide and survives to 0.1m in height. It is non-prominent, poorly defined and earthfast. Not shown on OS mapping. BM 38
BM50 Condition: Description: Date: Photo No:	Drystone wall Moderate Stone walling standing to c 2.5m in height. More detailed description is not possible due to very heavy vegetation obscuring the structure. BM 35, BM 39

BM51 Condition: Description: Date: Photo No:	Allotments and vegetation Unknown An area until recently occupied by allotments. The remains of these and the very heavy vegetation, particularly large stands of brambles and Japanese knotweed, have obscured any earlier remains within. BM 39, BM 40

4.3 **Broadley Wood Mill**

BWM1 Condition: Description: Date: Photo No:	Drystone wall Good A stretch of drystone wall along the north-western branch of the footpath. It runs north-west for 13m and then turns west. It is 0.5m high and retains the vegetation at its western side. Its runs parallel to, but to the north of, a boundary shown on mapping of 1844-8 to 1964. Post-1964 -
BWM2 Condition: Description: Date: Photo No:	Drystone wall Good Drystone walling at the north side of the footpath running above and to the north of the main site. It retains the slope of ground above it to the north and is 0.5m high. Post-1964 -
BWM3 Condition: Description: Date: Photo No:	Car park Unknown A level car park area above and to the north of the main site. Levelled with stone chippings. It is surrounded on its south side with a wooden fence and accessed from below via steps BWM8. -
BWM4 Condition: Description: Date: Photo No:	Drystone wall Good A 15m long stretch of drystone wall which lies at the top of the slope to the immediate north of the main site, along the southern edge of the footpath from the upper car park. It is 0.34m high and constructed from randomly coursed laminar stone. Post-1964 BWM 32

BWM5 Condition: Description: Date: Photo No:	Bank Good A north/south raised bank between the footpath the east and the pond (BWM50) to the west. It is c 0.8m in height, prominent, well defined and earthfast and appears to be constructed from rubble. BWM 15
BWM6 Condition: Description: Date: Photo No:	Steps Good Modern steps leading from the footpath up the bank (BWM5) to the pond (BWM50). BWM 15
BWM7 Condition: Description: Date: Photo No:	Revetment wall Good A 1.6m high drystone revetment wall which runs around the south-western side of the footpath leading from the lower car park (BWM49) to the steps (BWM6) up to the pond (BWM50). Corresponds with curving wall shown on 1890 and later maps, except on the north where the line of that wall swung eastward under the present path. BWM 14, BWM 15
BWM8 Condition: Description: Date: Photo No:	Steps Good Modern steps leading upslope from the lower car park (BWM49) to the upper car park (BWM3). -
BWM9 Condition: Description: Date: Photo No:	Stone blocks Moderate Three stone blocks forming an in-situ structure 1.1m by 0.7m. It is prominent but surrounded by stone demolition rubble and only the upper 0.2m is visible. The blocks are well shaped and show toolmarks. Lies within the mill as shown on the 1844-8 map. BWM 32
BWM10 Condition: Description: Date: Photo No:	Stone and brick structure Moderate Structure consisting of a machine made brick element measuring 0.5m square bonded to a stone block measuring 0.6m by 0.3m. It stands 0.4m in height and is surrounded by stone demolition rubble. The block are well shaped and show toolmarks. Lies within the mill as shown on the 1844-8 map. BWM 31

BWM11 Condition: Description: Date: Photo No:	Stone blocks Moderate A series of in-situ stone blocks measuring 2m by 0.6m and visible to 0.6m in height. The structure is surrounded by stone demolition rubble. The blocks are well shaped and show toolmarks. Lies within the mill as shown on the 1844-8 map. BWM 31
BWM12 Condition: Description: Date: Photo No:	Engine bed Good An engine bed consisting of a 1.6m by 1.3m by 0.6m deep stone block sitting on a base of stone and brick. The block has four cast iron bolts set into its upper surface. Lies within the mill as shown on the 1844-8 map. BWM 30
BWM13 Condition: Description: Date: Photo No:	Brick wall Very poor A very ruinous east/west brick wall. It is c 0.4m wide and survives to 0.2m in height. The bricks are handmade and the structure is non-prominent, poorly defined and partly earthfast. Lies within the mill as shown on the 1844-8 map. BWM 28, BWM 29
BWM14 Condition: Description: Date: Photo No:	Drystone wall Moderate An east/west stretch of drystone wall 4m long, 0.4m wide and 1.8m high. The stones are of slightly differing sizes but are mostly cut into the size and shape of bricks with some larger more irregular stones throughout. It has partially collapsed at the eastern end. Lies within the mill as shown on the 1844-8 map. BWM 28
BWM15 Condition: Description: Date: Photo No:	Engine bed Good A massive 5.4m by 2.4m rectangular engine bed with an 1m by 0.75m indentation at the south-western corner. It stands 3.4m high and is constructed from machine made brick with 0.65m deep stone blocks at the top. Together with BWM16 it forms the base for a late 19th century beam engine, of which BWM12 may also be part. Both BWM15 and BWM16 lie immediately inside the lie of an engine house probably shown on the 1890 map. Documentary evidence suggests that this engine house was added in or by 1879. ? 1879 BWM 26

BWM16 Condition: Description: Date: Photo No:	Engine bed Good A massive 6.7m by 1.6m rectangular engine bed. It stands 3.4m high and is constructed from machine made brick with 0.65m deep stone blocks at the top. The western blocks is no longer in situ and now stands upright beside it to the south (BWM17). Together with BWM15 it forms the base for a late 19th century beam engine, of which BWM12 may also be part. Documentary evidence suggests that this engine house was added in or by 1879. ? 1879 BWM 27
BWM17 Condition: Description: Date: Photo No:	Stone block Moderate A 2.3m by 1.6m stone block, 0.65m deep, which stands upright beside engine bed BWM16. It was originally part of the blocks at the top of the engine bed. ? 1879 BWM 27
BWM18 Condition: Description: Date: Photo No:	Revetment wall Moderate A length of drystone revetment wall which runs west for 8.8m and then turns south for 6.9m. It stands to 2m in height and is constructed from randomly coursed laminar stone. Much of it is obscured by rubble and vegetation but a beam hole is visible at the western end of the northern elevation and a further two beam holes with a large stone block above them at the eastern end, all at a height of c 1m. Western wall corresponds with western wall of the mill shown on the 1890 map and may also be shown on the 1844-8 map, while the eastern wall lies within the body of the mill. ? c 1818-1848 BWM 24, BWM 25
BWM19 Condition: Description: Date: Photo No:	Platform Moderate A 15m by 4m flat platform on the eastern side of the footpath at the western edge of the site and above revetment wall BWM20. It is prominent, well-defined and earthfast. -

BWM20 Condition: Description: Date: Photo No:	Revetment wall Poor A 9.5m long north/south stretch of drystone revetment wall at the western edge of the site, below platform BWM19. At the south end the wall returns east for 1.6m before turning south again for 0.9m where it meets revetment walls BWM21 and BWM22, although this point is obscured by vegetation. The wall is in poor condition and is obscured in many places by tumble and vegetation. It stands to c 0.3m in height. Corresponds with the western wall of the mill as shown on the 1844-8 map. c 1818-1848 -
BWM21 Condition: Description: Date: Photo No:	Drystone wall Very poor A very ruinous section of drystone wall which runs east from the southern end of wall BWM 20 for 3m and then returns north-east for 1.1m. It survives to 0.2m in height and is very overgrown and tumbled. Lies within the mill as shown on the 1844-8 map. Continues the line of revetment wall BWM22, believed to have been associated with a pentrough supplying the waterwheel, and may itself be part of the wheelhouse. ? c 1818-1848 BWM 23
BWM22 Condition: Description: Date: Photo No:	Revetment wall Moderate A section of drystone revetment wall within the upper revetment walling at the western side of the site below the footpath. It runs east for 3m and returns north for 2m. It is visible standing to a maximum of 2m in height and is constructed from randomly coursed laminar stone. It is heavily overgrown, obscuring its precise relationships with the other sections of revetment. Shown on the 1890 map which also shows a linear feature to the west to this running across the reservoir bank. This arrangement strongly suggests a pentrough carrying water from the reservoir into the mill's wheelhouse and supported, at the point immediately outside the mill wall, by revetment BWM 22. BWM 23

BWM23 Condition: Description: Date: Photo No:	Revetment wall Good A section of revetment walling at the south-western edge of the site which runs south from wall BWM22 for 7.5m and then returns east for 3.4m before turning south again for 2.75m. At this point meets wall BWM27. It stands to a maximum of 2.25m in height and is constructed from randomly coursed laminar stone with some more irregular blocks within it. Two beam holes are visible within the main north/south elevation, the southern one at a height of 1.25m and the northern at a height of 1.75m. The east/west stretch and the southern north/south stretch of this wall become much more ruinous where they meet wall BWM27. Revetment is shown on the 1890 map. 1844-1890 BWM 12, BWM 13
BWM24 Condition: Description: Date: Photo No:	Drystone wall Very poor An 8.8m long stretch of ruinous drystone walling which runs south from the western end of wall BWM21 to the eastern corner of wall BWM23, forming a platform within these walls. It stands to c 0.3m in height and is very overgrown and non-prominent. The platform created by these walls is covered in tumble and vegetation. Corresponds with western wall of mill building shown on 1844-8 map. c 1818-1848 BWM 12, BWM 13
BWM25 Condition: Description: Date: Photo No:	Mound Poor A 9.5m by 3.5m mound of stone tumble standing to c 0.6m above ground level. It is moderately prominent, well defined and earthfast. Lies in front of remains of western wall of mill building (BWM24) and may be material from that wall. BWM 12
BWM26 Condition: Description: Date: Photo No:	Wall Poor A 5m long stretch of drystone wall running north from wall BWM27. It is constructed from randomly coursed laminar drystone with stone slabs set upright along its eastern side. It is 0.9m wide and survives to a height of 0.3m. It abuts BWM27. Lies within mill building shown on 1844-8 map. c 1818-1848 BWM 12

BWM27 Condition: Description: Date: Photo No:	Drystone wall Poor An 14m long east/west stretch of drystone wall which meets wall BWM23 at the west. It is constructed from randomly coursed laminar stone, 0.4m wide and stands to a maximum height of 1m, although at its western end it is 0.1m to 0.2m in height and very ruinous. It is abutted by wall BWM26. At its southern side it appears to have a short southern extension which then turns east but this is very ruinous and it is unclear how this relates to the rest of the walling. Corresponds with southern wall of the mill shown on 1844-8 map. c 1818-1848 BWM 11
BWM28 Condition: Description: Date: Photo No:	Drystone wall Poor A 7.1m long and 0.4m wide north/south stretch of drystone wall within demolition mounds BWM35 At the southern end some handmade brick is also visible. It is only visible on the surface and is becoming earthfast. Corresponds with eastern wall of the mill as shown on the 1844-8 map. c 1818-1848 BWM 18, BWM 21
BWM29 Condition: Description: Date: Photo No:	Drystone wall Poor A 2.4m long by 0.4m wide east/west stretch of drystone wall within demolition mounds BWM35. It is only visible on the surface and is becoming earthfast. Corresponds with external wall of the mill as shown on the on 1844-8 map. c 1818-1848 BWM 20, BWM 22
BWM30 Condition: Description: Date: Photo No:	Drystone wall Poor A 1.8m long north/south stretch of drystone wall within demolition mounds BWM35 Its southern half is 0.4m wide and the northern half steps in to 0.2m wide. It is only visible on the surface and is becoming earthfast. Lies within the mill as shown on the 1844-8 map and continues the line of eastern external wall BWM28. A line of ruinous brick and stone visible running east from the southern end of this wall towards wall BWM34 may be a further wall line within this complex. BWM 30
BWM31 Condition: Description: Date: Photo No:	Post Moderate A 0.3m by 0.15m stone post standing to 0.3m. It sits at the western end of wall BWM29. BWM 20, BWM 22

BWM32 Condition: Description: Date: Photo No:	Post Moderate A 0.25m by 0.15m stone post standing to 0.4m. It sits at the southern end of wall BWM28. BWM 20, BWM 21
BWM33 Condition: Description: Date: Photo No:	Post Moderate A 0.3m by 0.2m stone `post standing to 0.3m. It sits at the northern end of wall BWM30. BWM 20
BWM34 Condition: Description: Date: Photo No:	Wall Poor A 3.6m long north/south stretch of walling within demolition mounds BWM35. The northern 1m long stretch and southern 1.7m long stretch are both 0.4m wide and constructed from laminar drystone. Between these the is a 0.2m wide single course of handmade brick. It is only visible on the surface is becoming earthfast. Its alignment roughly corresponds with the eastern external wall of the mill as shown on the 1844-8 map. c 1818-1848 BWM 20
BWM35 Condition: Description: Date: Photo No:	Demolition mounds Poor A series of irregular mounds of stone and brick demolition rubble spread across the flat area in the centre of the site. This rubble derives from the demolition of the mill. Within it a number of in-situ stretches of walling and posts indicate the presence of intact buildings below this rubble. The mounds stand up to 2m to 2.5m in height in many places and suggest that the remains surviving below them may be extensive and substantial. The mounds themselves are very prominent, well defined and earthfast, and are heavily overgrown. BWM 18, BWM 20, BWM 21, BWM 22
BWM36 Condition: Description: Date: Photo No:	Drystone wall Moderate A 1m long east/west stretch of drystone wall visible within a depression at the south-western side of demolition mounds BWM35. Three courses of laminar stone are visible. Lies within the mill as shown on the 1844-8 map. Possibly part of the wheelpit. BWM 19

BWM37 Condition: Description: Date: Photo No:	Stone slab Moderate A 0.2m wide upright stone slab visible within the southern edge of demolition mounds BWM35. It stands to 0.3m and 0.8m of its length are visible. It appears to be in situ. Lies within an area not shown as built upon on the historic mapping. 1844-1890 BWM 10
BWM38 Condition: Description: Date: Photo No:	Brick wall Moderate A 0.46m long east/west stretch of machine made brick walling visible in a slight depression to the south of demolition mounds BWM35. Four courses of brick are visible in a stretcher bond. Runs parallel to southern wall of south-east wing of mill shown on the 1890 map but is set further to the north and extends beyond the western wall of that wing. BWM 9
BWM39 Condition: Description: Date: Photo No:	Platforms and tanks Moderate to poor Two flat platforms built onto the sloping ground between wall BWM7 and byewash BWM40. The lower (eastern) platform measures 2.2m square and has laminar drystone walling raised to a maximum of 0.4m above the slope. Both platforms are overgrown but appear to have stone slab surfaces. The upper (western) platform is raised 0.4m above this with laminar drystone walling and measures 5m by 2.2m. At its western end are two tanks measuring 1.4m by 0.8m and constructed from upright stone slabs 0.07m thick and c 0.25m high. The tanks are obscured by very heavy vegetation. Not shown on the OS mapping. BWM 16, BWM 17
BWM40 Condition: Description: Date: Photo No:	Byewash Very good A stone weir running downslope from west to east, curving slightly at the east. It measures c 23.5m by 3m. The weir drops c 3.5m from the west to a 3.5m long flat step and then drops a further c 3.5m to the bottom at the east. The drops are constructed from stepped laminar stone. The byewash carries water from the pond (BWM50) and has been culverted at its eastern end, the culvert entrance being below the western end of wall BWM41. It now serves as an overflow channel for the pond. Shown on the 1890 and later maps, and possibly indicated on the 1844-8 map. BWM 8

BWM41 Condition: Description: Date: Photo No:	Drystone wall Moderate A stretch of drystone walling running east from the eastern (lower) end of the byewash (BWM40) to room BWM42 to the east. Above the entrance to the byewash culvert the wall runs north/south for 2.5m and stands to 0.3m in height. This then turns north-east for 7m and rises to a height of 1.2m before turning east for 3.8m where it rises to 2m in height and is bonded into the exterior south-west corner of room BWM42. It is constructed from coursed laminar stone 0.6m wide. Shown on the 1890 and later maps. The 1844-8 map shows a boundary on a slightly different alignment. ?c 1844-1890 BWM 8
BWM42 Condition: Description: Date: Photo No:	Room Moderate A roughly rectangular room measuring 4.2m by 4m. The walls are 0.6m thick coursed laminar drystone. The southern wall stand to 2m in height and is bonded into wall BWM41 on the west. The western wall is quite ruinous and stands to 0.4m. The eastern wall is 0.6m high at its northern end rising to 2m at the south where it meets the southern wall. The northern wall is visible only as a short 0.5m long stub running west from the northern end of the eastern wall. An intact stone flag floor surface is visible next to this wall stub. The interior is filled with stone tumble. It is part of a former stable block formed by BWM41-45. Room is clearly shown on the 1890 map and appears to represent western extension of the stable block shown on the 1844-8 map. c 1844-1890 BWM 7
BWM43 Condition: Description: Date: Photo No:	Room Moderate A rectangular room measuring 6.7m by 4.7m and defined by 0.6m wide walls constructed from coursed laminar stone. The western wall is 0.6m high at its northern end rising to 2m high at the south. The southern wall stands to 2m high at its western side rising to 4.5m in height at the east. The eastern wall drops steeply from 4.5m at the south-eastern corner to 1.2m high at the north. Two sections of the northern wall are visible. The first heads east for 1m from the northern end of the western wall and the second heads west for 3m from the northern end of the eastern wall. Both of these are very ruinous, surviving to only 0.4m in height. It is presumed that the entrance to the room lies between these two wall stubs. The interior is filled with stone and brick tumble. It is part of a former stables complex formed by BWM41-45. The interior is filled with stone and brick tumble. It is part of a former stable block formed by BWM41-45. Room is clearly shown on the 1890 map and corresponds with part of a range shown on the 1844-8 map. A stable is documented in 1843. c 1818-1843 BWM 6

BWM44	Room
Condition:	Moderate
Description:	A rectangular room measuring 8m by 5.3m and defined by 0.6m wide walls constructed from coursed laminar stone. The western wall is 1.2m high at its northern end rising steeply to 4.5m high at the south. The southern wall stands to 4.5m high at its western side dropping to 2m in height at the east. The eastern wall drops from 2m at the south-eastern corner to 1.1m high at the north. A section of the northern wall runs west from the northern end of the eastern wall for 3.9m and drops from 1.1m high at the eastern end to 0.3m high at the west. The entrance appears to lie in the north-western corner of the structure. The interior is filled with stone and brick tumble. It is part of a former stable block formed by BWM41-45. The room is clearly shown on the 1890 map and corresponds with part of a range shown on the 1844-8 map. A stable is documented in 1843.
Date:	c 1818-1843
Photo No:	BWM 5
BWM45	Room
Condition:	Moderate
Description:	A rectangular room measuring 7.1m by 4.2m and defined by 0.6m wide walls constructed from coursed laminar stone. The northern wall is formed by the southern wall of BWM44. The western wall runs south for 4.3m and is 2m in height. The southern wall is 7.3m long and 2m high. There is no evidence of an eastern wall and the structure may have been open fronted. The interior is filled with stone and brick tumble and is overgrown. It is part of a former stable block formed by BWM41-45. The room is clearly shown on the 1890 map and appears to represent a southern extension of the stable block shown on 1844-8 map.
Date:	c 1844-1890
Photo No:	BWM 4
BWM46	Stone step
Condition:	Moderate
Description:	A 1m by 0.4m stone block standing to 0.4m in height which lies between the outer south-western corner of structure BWM45 and the northern end of wall BWM47. It appears to serve as a step from the exterior ground level of the stable block and the base of the sloping ground above it. Lies at northern end of field boundary shown on the 1890 map.
Date:	c 1844-1890
Photo No:	BWM 3
BWM47	Retaining wall
Condition:	Moderate
Description:	A thick drystone wall retaining the slope to the west. It is built from randomly coursed laminar stone with irregular stone blocks within it. It is 2.6m wide and the wall face slopes downward from west to east. It runs south from the south-eastern end of the stable block. Corresponds with field boundary shown on the 1890 map and seemingly replacing a more westerly boundary shown on the 1844-8 map.
Date:	c 1844-1890
Photo No:	BWM 2

BWM48 Condition: Description: Date: Photo No:	Mound Poor A 5m diameter mound of stone tumble standing to 0.3m in height. It is prominent, well defined and earthfast. BWM 2
BWM49 Condition: Description: Date: Photo No:	Car park Good The lower car park at the eastern side of the site. It is level and surfaced with stone chippings. It is accessed from the road to the east and has steps (BWM8) at the north leading to the upper car park (BWM3). -
BWM50 Condition: Description: Date: Photo No:	Pond Good A large mill pond originally serving Broadley Wood Mill. It lies in the ground above the terraced mill complex and has an embankment (BWM5) to the east. At the south- east it feeds into the byewash (BWM40). The reservoir is shown on Greenwood's map of 1818. c 1818 -

4.4 **Broadley Stone Rubbing Mill**

SRM1 Condition: Description: Date: Photo No:	Platform Moderate The visible southern edge of a platform which lies mainly beneath heavy vegetation to the north. The visible portion measures 3.6m by 1m with a further thin spur visible running south along the very edge of the vegetation. It is 0.3m in height, prominent, well defined and earthfast. Some stone construction is visible in the thin southern spur. The feature lies outside the north end wall of the stone rubbing mill as shown on OS mapping. SRM 1
SRM2 Condition: Description: Date: Photo No:	Platform Moderate A 2.8m by 1.6m platform standing to 0.3m in height. No stone or brick visible in its construction. Well defined, prominent and earthfast. The feature coincides with the line of the north end wall of the stone rubbing mill as shown on OS mapping. SRM 1

SRM3 Condition: Description: Date: Photo No:	Flag surface Good The remains of a stone flag floor surface visible beneath the vegetation. The exact edges are unclear but it seems to run out to the south. The feature lies immediately outside the north end wall of the stone rubbing mill as shown on OS mapping, but may also intrude within the body of the mill. c 1890 SRM 2
SRM4 Condition: Description: Date: Photo No:	Gearing pit Good A 5.5m diameter drystone pit . The walls are c 0.5m wide and constructed from randomly coursed irregular stone. The interior is hexagonal. A covered passage lead into it from the engine put (SRM6) to the south. The passage is partially collapsed choked with rubble. The pit is currently open to a depth of 1.8m but the exact depth is unknown due to rubble filling the base. One of the base slabs is visible on the surface next to the pit. Sited within northern shed of mill, as shown on OS mapping. c 1890 SRM 3
SRM5 Condition: Description: Date: Photo No:	Flag surface Moderate An irregular stone flag surface measuring 5m long by 0.6m wide and widening to 2.7m at its southern end. This appears to be all that remains of the original flag floor at the eastern side of the northern gearing. Lies within the eastern side of the northern shed of mill as shown on OS mapping. c 1890 SRM 4
SRM6 Condition: Description: Date: Photo No:	Engine pit Good A rectangular pit for a steam engine sunk into the ground. The engine room measures 5.4m by 3m and is 1.8m deep. Into the floor of this pit is a further 3.4m by 0.7m linear pit visible to depth of 0.4m at which point it is choked with rubble. To the east a small entrance allows access to the engine from a set of stone steps leading upwards north to south. Two covered passages, one to the north and one to the south, lead into the two gearing pits (SRM4 and 11), and would have housed the power transmission system to those pits. The northern passage is collapsed and choked with rubble, the southern one still intact. The walls of the pit are c 0.3m to 0.5m wide and constructed from randomly coursed irregular stone. Sited within northern shed of mill as shown on OS mapping. c 1890 SRM 5, SRM 6, SRM 7

SRM7 Condition: Description: Date: Photo No:	Flag surface Poor A single stone flag to the south-west of the northern gearing pit (SRM4) which was probably part of the original flag floor surface surrounding this pit along with SRM5. Sited within northern shed of mill, as shown on OS mapping. c 1890 -
SRM8 Condition: Description: Date: Photo No:	Mound Poor A 3.8m by 2.9m mound of stone rubble standing to 0.3m. It is prominent, well defined and earthfast. SRM 6
SRM9 Condition: Description: Date: Photo No:	Embankment Moderate A 52m long by 10m wide north/south linear embankment sitting above wall SRM10 running parallel to the former railway sidings (SRM20). The west, north and east slopes are moderately steep and the south slope is quite gradual. It is very prominent, well defined, earthfast and overgrown. Possibly demolition/clearance material from the interior of the mill. SRM 16
SRM10 Condition: Description: Date: Photo No:	Revetment wall Good A 0.9m high drystone retaining wall running along the eastern side of the site parallel to the former railway sidings (SRM20). It begins at the corner of the railway sidings and the tramway (SRM21) and runs south beyond the area of the site. It is constructed from well shaped coursed laminar stone with occasional irregular stone blocks and large flat capstones. Defines the western side of the sidings platform which fronted the mill. c 1890 SRM 16
SRM11 Condition: Description: Date: Photo No:	Gearing pit Good A 5.5m diameter drystone pit. The walls are c 0.5m wide and constructed from randomly coursed irregular stone. The interior is hexagonal. A covered passage, which would have housed the power transmission system, leads into it from the engine pit (SRM6) to the north which still has one of the capping slabs in situ. The pit is currently open to a depth of 1.8m but the exact depth is unknown due to rubble filling the base. Sited within northern shed of mill as shown on OS mapping. c 1890 SRM 7, SRM 8, SRM 9

SRM12 Condition: Description: Date: Photo No:	Wall Poor A 6.6m long stretch of very ruinous drystone wall running north/south to the west of gearing pit SRM11. It stands to 0.2m in height, is non-prominent, relatively well-defined and semi-earthfast. Coincides with the line of the western outer wall of the mill as shown on OS mapping. c 1890 SRM 1
SRM13 Condition: Description: Date: Photo No:	Embankment Moderate A massive embankment at the western side of the side. It is partly a natural slope but appears to have been modified to accommodate the mill. A path runs from north to south along it half way up the slope. At the northern end it curves west and a slight cutting into it running south-west may be the remains of a former trackway. c 1890 SRM 6
SRM14 Condition: Description: Date: Photo No:	Depression Moderate A c 10m long by 4m wide depression to the south of the gearing pits. Randomly coursed stone walling is visible standing to 0.2m on the north side and to 0.4m at the south. The east and west sides are obscured by heavy vegetation and tumble and reduced to rough slopes. The whole feature is heavily overgrown but is generally prominent and well defined. The based is choked with vegetation and rubble. Coincides with a narrow elongated bay shown on OS mapping on the south side of the northern shed of the mill. The OS mapping shows a chimney immediately adjacent to this depression on the west, suggesting that it contained the mill's boiler. c 1890 SRM 10
SRM15 Condition: Description: Date: Photo No:	Stone base and wall Moderate A 1m square and 0.4m deep stone block set into the slope with the settings for machinery carved into the upper surface. A poorly defined 0.2m high drystone wall runs east from its north-east corner for 1.5m, kinks in to the south for 0.3m and then heads east again for 1.5m before disappearing at the edge of depression SRM17. It may line up with the north/south wall in SRM17. The stone base lies within a projection from the western wall of the southern shed of the mill as shown on OS mapping of 1908. c 1890-1908 SRM 11

SRM16 Condition: Description: Date: Photo No:	Platform Poor A 1.9m by 1.2m platform built into the slope which is raised to a maximum of 0.75m at its eastern end. No stone or brick is visible and the feature is non-prominent, relatively well defined, earthfast and heavily overgrown. Lies immediately outside a projection from the western wall of the southern shed of the mill as shown on OS mapping of 1908. SRM 12
SRM17 Condition: Description: Date: Photo No:	Wall and depression Poor A 4.8m by 3.5m sub-circular depression 0.4m deep. Part of the western edge is defined by a 1.6m long north/south drystone wall. The upper 0.2m of this wall is visible and possibly aligns with wall SRM15. The depression is non-prominent, poorly defined and heavily overgrown. Lies within area of the southern shed of the mill as shown on OS mapping. SRM 13
SRM18 Condition: Description: Date: Photo No:	Cast iron bolts Poor Two in-situ 30mm circular cast iron bolts 1.35m apart from north to south visible poking up through the undergrowth. The surrounding area is very heavily overgrown and obscures any structures beneath. The bolts look like those used in machine settings. Lies within area of the southern shed of the mill as shown on OS mapping. c 1890? SRM 14
SRM19 Condition: Description: Date: Photo No:	Wall and depression Poor A 4.2m by 1.7m east/west linear depression, the northern side of which is defined by a 3.4m long east/west drystone wall. The depression is c 0.4m deep, non-prominent, poorly defined and very heavily overgrown. The upper 0.2m of the wall are visible. Lies within area of the southern shed of the mill as shown on OS mapping. SRM 15
SRM20 Condition: Description: Date: Photo No:	Former railway and sidings Moderate The line of the former Rochdale to Facit single line railway, built 1865-1870, and sidings to the rubbing mill presumably added c 1890. This dismantled railway runs north/south to the immediate east of the site. Now used as a footpath. -

SRM21 Condition: Description: Date: Photo No:	Former tramway Moderate The line of the former tramway from Bagden stone quarry, west of the site, to the stone rubbing mill and the former railway (SRM20). Now used as a footpath. -
SRM22 Condition: Description: Date: Photo No:	Flag surface Good A stone flag floor surface surrounding the southern gearing pit (SRM11). Appears to be the most complete of the surviving flag floor surfaces. Sited within the northern shed of the mill as shown on OS mapping. c 1890 SRM 7, SRM 8

4.5 **Th'Owd Mill I't Thrutch**

TMT1 Condition: Description: Date: Photo No:	Platform and wall Poor A roughly 18m by 5.5m platform terraced into the slope with a 0.5m high drystone wall defining its northern edge beside the roadway. It is prominent, well-defined and earthfast
TMT2 Condition: Description: Date: Photo No:	Former roadway Good The line of the former roadway which runs around the slope above the site. It has a fence running along the western and northern sides. It is now covered with crumbling tarmac but the original stone sets can be observed below in places.
TMT3 Condition: Description: Date: Photo No:	Wall Poor Drystone walling set into the slope which runs west for 3m where it is 0.4m high and then turns south-west for 2.2m, rising to 1.2m high. At this point it turns south for 5m rising to 1.7m in height. This revets the slope to the immediate south which is heavily overgrown and built mainly from stone rubble. TM 22, TM 23

TMT4 Condition: Description: Date: Photo No:	Wall Poor A 0.5m high stretch of drystone walling revetting the rubble strewn and overgrown slope to its south. It sits below wall TMT3 and runs south-west from it for 7.5m, turns south-south-west for 1m and then turns south for 5.3m. It is obscured by very heavy vegetation. TM 21
TMT5 Condition: Description: Date: Photo No:	Wall Very poor A 4.5m long north/south stretch of drystone wall, 0.6m high, which sits at the top of the slope above the culvert, TMT6. It is possibly retaining the slope above the culvert to stop the effects of water erosion. TM 20
TMT6 Condition: Description: Date: Photo No:	Culvert Moderate A 1.18m high drystone arched culvert for a water outlet. The arch entrance is 0.78m in height. This feeds into the reservoir (TMT8). ?1813 TM 20
TMT7 Condition: Description: Date: Photo No:	Wall Very Poor A very ruinous 1.2m long and 0.4m high drystone wall to the south-west of the culvert (TMT6). This may be to channel water into the reservoir (TMT8). ?1813 TM 20
TMT8 Condition: Description: Date: Photo No:	Reservoir Moderate A large drystone walled pit measuring roughly 8.5m by 7.5. The eastern side of the reservoir is buried under a slope of tumble that has eroded down the slope. It is between 1.3m and 1.6m deep and the base is choked with stone tumble. ?1813 TM 18, TM 19

TMT9 Condition: Description: Date: Photo No:	Wall and walkway Good A substantial 1.3m to 1.4m high vertical drystone sided embankment creating a walkway around the western and south-western sides of the reservoir (TMT8). It is constructed from randomly coursed irregular stone blocks. The top, which is used as the walkway, is earthfast. It lies on top of the sloping ground immediately above the river. At the point at which it curves from south-west to south a short drystone spur of walling, c 1m by c 0.4m, juts out from its external face to the south-west. This spur is very ruinous and the function is unknown. ?1813 TM 18, TM 19
TMT10 Condition: Description: Date: Photo No:	Roadway Good The original access road from the upper road (TMT2) to the mill which slopes downwards to the south-west on the first terrace, levels out at the east side of the reservoir (TMT8) and turns downwards again to the north-east levelling out on the second terrace. Stone sets are in situ on the first terrace of the roadway and for the first half of the second terrace. Its western end and part of the north-east route are covered in vegetation. TM 17, TM 21, TM 22, TM 23
TMT11 Condition: Description: Date: Photo No:	Revetment wall Moderate The uppermost of a series of four revetment walls creating the three terraces of the mill. This begins at the bottom of the first downslope of the access road (TMT10) with a stone kerb (TMT13) at the very start. It runs north-east for 10m at which point there is a gap of 3.5m due to collapse. The wall then continues north-east for 13.7m where it turns north for 1.2m and turns north-east again beyond the outcropping rock at the eastern side of the site. At its westernmost end it begins, with wall TMT14, at ground level and stays at the same level as TMT14 up to the collapsed part of the wall, 2.65m above the top of the slope below. Beyond the collapsed portion it rises from the same the level as the top of wall TMT14 to c 0.2m above it where the two walls converge to the east (i.e. 3.8m above the slope below it). At the point where it meets wall TMT16 it is 2.2m higher than the top of that wall and is 1.8m higher than the top of wall TMT34. It is constructed from randomly coursed irregular stone blocks. TM 5, TM 6
TMT12 Condition: Description: Date: Photo No:	Cast iron post Good The bottom 0.2m of an 80mm diameter cast iron pole set into the top of revetment wall TMT14. -

TMT13 Condition: Description: Date: Photo No:	Kerbstones Moderate Smooth granite kerbstones at the western end of revetment walls TMT11 and TMT14, at the point they rise from the ground level.
TMT14 Condition: Description: Date: Photo No:	Revetment wall Moderate The second of a series of four revetment walls creating the three terraces of the mill complex. This begins at the bottom of the first downslope of the access road (TMT10) with a stone kerb (TMT13) at the very start. It runs north-east for 6m, turns north for 1.3m and then angles back east for 5.2m at which point there is a gap of 3.5m due to collapse. It then continues east for 8.3m at which point it meets, and is keyed into, wall TMT11. At the westernmost end it begins, with TMT11, at ground level and rises to 1.7m above the top of the slope at the point at which it turns north. At the collapsed section it is 2.65m above the top of the slope below and at its eastern end is 3.6m above. It is constructed from randomly coursed irregular stone blocks. TM 16
TMT15 Condition: Description: Date: Photo No:	Revetment wall Moderate The third of a series of four revetment walls creating the three terraces of the mill complex. It begins close to the western end of wall TMT14 and runs north for 2m and then turns east for a further 9.5m where it is keyed into wall TMT11. At its western end it stands to a height of 2.8m above the top of the slope below it. At the eastern end it is at a height of 1.4m. It is constructed from randomly coursed irregular stone blocks. TM 6
TMT16 Condition: Description: Date: Photo No:	Revetment wall Poor The fourth of a series of four revetment walls creating the three terraces of the mill complex. It begins near to the bottom of the mill access road and heads north-east for 3m, turns east-north-east for 10m, turns east for 4m and then turns south for 1.5m where it is keyed into wall TMT11. At the western end it begins at ground level and is very ruinous. The ground below slopes away until at halfway along its length it stands to a height of 2m above the ground level and is much less ruinous. At its eastern end it stands to a height of 3m above the ground level. It is constructed from randomly coursed irregular stone blocks. TM 6, TM 14, TM 15

TMT17	Mound
Condition:	Poor
Description:	A 6m by 3m mound of mixed demolition rubble standing to a maximum height of 2m. It is very prominent, well defined and earthfast.
Date:	
Photo No:	TM 8, TM 15
TMT18	Sulphur stoves
Condition:	Poor
Description:	The remains of a pair of adjoining sulphur stoves, rooms in which cloth was hung and bleached by burning sulphur. They comprises substantial 1.3m thick walls at the west, south and east with a 0.6m wide central wall creating two rooms. The southern, rear, 7.3m long east/west wall is built into the terrace and can be seen on the interior standing to a height of 2.5m. A spread of earthfast rubble has created a sloping platform above this, next to the turning point of the mill access road. The western and eastern walls run north from either end of the southern wall for 4.5m leaving a narrow gap between the front of the structure and the river edge as a walkway. The western wall stands to a height of c 2.5m at its southern end, where it joins the rear wall, sloping to c 1.5m in height at its northern end. The eastern wall also stands to 2.5m at the south, dropping to 1.7m in height at the north. The central dividing wall is 4m long, quite ruinous, and stands to a maximum height of 0.6m at its northern end. It is not quite central and forms a western room of 4m by 1.9m and an eastern room of 4m by 2.3m. The interior of the structure is choked with stone rubble, is partly overgrown and appears to be in a dangerous state. The western wall shows the outline of a barrel vaulted roof to each of the rooms, with the walling below this being of regular coursing and the walling above being of randomly coursed irregular stone blocks. These sulphur stoves were built against a second pair of stoves to the east. No remains are visible of this second pair of stoves but the slope appears to be stone demolition rubble (TMT35).
Date:	1844-1863
Photo No:	TM 12, TM 13
TMT19	Slab
Condition:	Poor
Description:	A 0.8m by 0.4m by 0.2m thick stone slab within the rubble slope (TMT35) which appears to be in situ and may represent part of a flag floor in front of the range of sulphur stoves.
Date:	1813-1882
Photo No:	TM 11
TMT20	River wall
Condition:	Good
Description:	A drystone wall revetting the northern edge of the mill complex along the river bank. It runs east from the river edge in front of the western end of the sulphur stoves (TMT18) and continues to the rock outcrops at the west. It is constructed from randomly coursed irregular stone blocks and stands to a height of c 1.5m above the water level.
Date:	1813
Photo No:	-

TMT21 Condition: Description: Date: Photo No:	Stone tank Moderate A 2m by 1.5m stone tank 0.9m deep. It is constructed from 0.2m thick stone slabs set on end. The northern and southern slabs have grooves cut into the interior at either end in which to slot the eastern and western slabs. The western slab is missing. The base is silted up but it is assumed that this also comprises a stone slab. This is probably a 'blue pit', used for the 'blueing' of bleached clothe to improve its appearance. 1813-1882 TM 10
TMT22 Condition: Description: Date: Photo No:	Stone tank Moderate A 2.3m by 1.4m stone tank 0.9m deep. It is constructed from 0.2m thick stone slabs set on end. The northern slab is broken by a tree growing next to it. The southern slab has two 0.2m by 0.1m rectangular holes cut into its top edge, one at either end, the easternmost of which is filled with lead. The western slab has two grooves in its interior surface to slot the northern and southern slabs into and has three 0.2m by 0.1m rectangular holes cut into its top edge between the grooves. The eastern slab has no grooves or holes and simply buts the end of the southern slab. The base is silted up but it is assumed that it comprises a stone slab. This is probably a 'blue pit', used for the 'blueing' of bleached clothe to improve its appearance. 1813-1882 TM 9
TMT23 Condition: Description: Date: Photo No:	Possible stone tank Poor A 1.2m long and 0.2m thick stone slab set on end and standing to a maximum visible height of 0.4m. It is within the demolition rubble slope (TMT35) but appears in situ and may represent the remains of a stone tank. This is possibly a 'blue pit', used for the 'blueing' of bleached clothe to improve its appearance. 1813-1882 TM 8
TMT24 Condition: Description: Date: Photo No:	Stone tank Poor Three upright stone slabs within the demolition rubble slope (TMT35) which appear in situ and represent the remains of a stone slab tank. The eastern and western slabs are 1.4m long, 0.2m thick and stand to a maximum visible height of 0.4m. The southern slab is 0.4m long, 0.2m thick and visible only on the surface. The western and eastern slabs both have a 0.2m wide groove cut into the southern end of the interior surface to slot in the southern slab. There are no such grooves at the northern end. The western slab also has two small round holes drilled into its upper edge. This is probably a 'blue pit', used for the 'blueing' of bleached clothe to improve its appearance. 1813-1882 TM 8

TMT25	Stone tank
Condition:	Good
Description:	A 2.3m by 1.6m stone tank 1.2m deep angled north-east/south-west which, at its northern corner, overhangs the river. It is built from four stone slabs, 0.2m thick, set on end with a further slab set flat as a base. The south-western slab is 0.4m high, creating an open upper front, and the north-western and south-eastern slabs have the lower 0.4m at the front cut out to accommodate it. The north-eastern, rear, slab has two vertical 0.2m wide grooves cut into the interior surface, possibly to accommodate movable wooden partitions. The north-western and south-eastern slabs each have a 0.2m vertical groove cut into the interior surface above the lower south-western slab, also possibly for a movable wooden partition. Both also have a small round hole drilled through them just in front of this groove, possibly for the insertion of a bar or dowel. The south-eastern and north-western slabs have a series of small round holes drilled through, for screws or bolts, and the outlines of three plates on the exterior surfaces corresponding to these bolt holes. The base is silted up but the slab can be observed at the northern end of the tank. Probably displaced.
Date:	1813-1882
Photo No:	TM 7
TMT26	Flag surface
Condition:	Poor
Description:	The remains of a stone flag floor surface lying between the easternmost stone tank (TMT25) and the western end of the wheelpit (TMT27). Formerly an internal floor surface within the main mill building.
Date:	1813-1882
Photo No:	TM 7
TMT27	Wheelpit
Condition:	Good
Description:	An 8.4m long drystone wheelpit aligned roughly east/west, 1.7m wide at the west end and 1.5m wide at the east. Except on the east, the wheelpit is constructed from randomly coursed irregular drystone blocks. In the centre of the wheelpit the upper level of the drystone walling is recessed to accommodate the bearing for the wheel. It is choked with rubble but is visible to a depth of 2.7m below ground level at the western side and 2m at the east. The eastern end sits against the outcropping rock with a wall of finely faced stone blocks above this, behind which is a 5m long linear depression of uncertain origin. The top of the headrace arch is visible above the top of the rubble and is cut into the rock outcrop. The tailrace outlet is largely obscured by the rubble at the western end of the wheelpit.
Date:	1813
Photo No:	TM 3, TM 4
TMT28	Linear mound
Condition:	Poor
Description:	A 4.5m long linear mound of stone rubble between 0.3m and 1m wide and standing to 0.5m in height. It is prominent, well defined and earthfast.
Date:	
Photo No:	-

TMT29 Condition: Description: Date: Photo No:	Wall Moderate A 7.5m long and 0.5m wide stretch of drystone walling running along the river edge on the southern sides of the two arches (TMT30-31). It is constructed from randomly coursed irregular stone blocks. 1813 TM 1, TM 2
TMT30 Condition: Description: Date: Photo No:	Arch Good A 1.2m wide and 6.2m long arch constructed from a single course of stone blocks. This arch and the other 6.2m to the east (TMT31) originally supported a two storey stone building containing machinery powered by the water wheel (TMT27) to the south. 1813 TM 2
TMT31 Condition: Description: Date: Photo No:	Arch Good A 1.2m wide and 6.2m long arch constructed from a single course of stone blocks. This arch and another 6.2m to the west (TMT30) originally supported a two storey stone building containing machinery powered by the water wheel (TMT27) to the south. 1813 TM 1
TMT32 Condition: Description: Date: Photo No:	Wall Moderate A 2.4m long and 0.3m wide north/south stretch of wall running north from the edge of the outcropping rock to the river edge. It stands to c 1m in height and is constructed from coursed laminar stone. Corresponds with north-east wall of the mill building shown on OS mapping. 1813 TM 3
TMT33 Condition: Description: Date: Photo No:	Revetment wall Moderate A 3m long section of walling revetting the outcropping rock next to the wheelpit. It is constructed from finely faced blocks of stone. Corresponds with north-east wall of the mill building shown on OS mapping. 1813 TM 3

TMT34 Condition: Description: Date: Photo No:	Revetment wall Moderate A 3.2m long north/south section of drystone revetment wall running from the southern end of the rock outcrop at the eastern side of the site to wall TMT11 at the south. It stands to 1.6m in height and is keyed into wall TMT11. It is constructed from randomly coursed irregular stone blocks. TM 3, TM 5
TMT35 Condition: Description: Date: Photo No:	Demolition rubble slope Poor A slope on the lower terrace running east from the eastern side of the sulphur stoves (TMT18) to a rubble mound (TMT17). The slope comprises earthfast stone rubble. TM 11, TM 12, TM 13, TM 15

5. Survey Results: Discussion

5.1 Introduction

5.1.1 The following section discusses the contribution of the findings of the measured survey to the outstanding of these sites. See also Figs 9-12 for the relationship between the historic mapping and the measured survey, and Figs 13-16 for the interpretation of the component parts of the four sites.

5.2 Broadley Mill

5.2.1 The survey area for Broadley Mill represented approximately half of the known extent of the mill, comprising that part south of the bridge over the River Spodden and the associated trackway. As outlined by the desk-based assessment, there is scant visible evidence of the northern part of the site which comprised an east-west range straddling the river. No in-situ walling has been identified of this range, the central part of which is now covered with a mound which carries a sewerage pipe across the river, while the eastern end is marked by a mound of demolition material and an overgrown depression.

5.2.2 The measured survey has shown that the visible remains in the southern side of the site themselves show marked differences, with the results for the western side of the river varying significantly from those for the eastern.

5.2.3 Western side of the river

In the case of the western side of the river, the historic mapping shows two main elements, in addition to a circular gasometer which is still clearly evident as a circular hollow. The first, and largest of these, was a north/south range set back from the river and occupying much of the central part of the survey area between the gasometer in the south and the trackway in the north; it comprised a main block which at its southern end continued as two smaller builds, with slightly offset elevations on the east and west. The second was an L-shaped range to the north-west of this. Both ranges are shown of the OS map of 1844-8 and prior to the demise of the mill in c 1880 were joined by a small linkage block, shown on mapping of 1890. In addition by 1844-8 there was a small building situated immediately adjacent to the river facing the southern part of the main north-south range. A photograph of c 1870 shows the gasometer and the southern end of that main range, with a small yard on the east bounded by a drystone wall (Arrowsmith 2004, Ill 122).

The survey has shown that all of these features are evident on the ground either in the form of walling or earthworks.

5.2.4 Of the central north/south range the main block is visible as a depression (BM8), and to the south of this an east-west wall (BWM15), both of which correspond to the width of the block as shown on the OS mapping. The position of BWM15 suggests that this was either an internal wall within the block or originally its southern wall, with the block being later extended to the south. The two builds at the southern end of this block, shown on the OS mapping, are both visible as wall footings. In the case of the northern build, these comprise walls BM19, BM20 and BM18, while the southern build is represented by wall BM27 which includes the southern wall, part of the western wall and what appears to have been an internal division.

The north-western range appears to be represented by walls BM1, BM2 and BM4 on the west and wall BM11 on the south. The linkage building added between the two blocks is evident as wall BM11 on the west and BM10 on the south

The small building shown on the OS mapping adjacent to the river is evident as walls BM23. The wall enclosing the yard to the south of this is represented by earthwork BM25 and wall BM28.

5.2.5 With the exception of the gasometer, the visible remains on the western side of the river at present give no obvious indication of their precise function, but there is reason to believe that they date from an expansion of the mill in the 1830s which saw the introduction of cotton spinning alongside the earlier woollen mill.

As noted above (4.1.3), the local antiquarian Maxim noted that Robert and John Tweedale took over the mill in 1830 and remained here until 1875, during which period they constructed a cotton mill adjacent to the woollen mill. Similarly, trade directories name John and Robert Tweedale as manufacturers of blaize and flannel at Broadley Mill in 1834, but by 1838 a second firm is also listed here, that of John Tweedale & Sons, cotton spinners. The expansion into cotton spinning can perhaps be more precisely dated by the introduction of steam power to the site, which seems to have occurred in 1836.

This expansion also seems to be reflected in Poor Rate valuations for the hamlet of Catley Lane, which included those parts of the mill on the west side of the river. They comprised both the area of the present detailed survey and the western side of the east/west range to the north of the bridge and track. The eastern side of that range was the original core of the woollen mill, and from a datestone it is known that this early mill range was expanded westward over the river no later than 1804. In the valuation of 1834, the Catley Lane side of the mill was described as including 'a Barn &c', 'Dry house' and 'Tenter ground'. By 1843, however, a revised description lists a 'Stove, or Dry house', 'Smithy', 'Press Room, Glossing Room, Firehole & Counting House', 'Store room, Staircase, Warehouse, Carding & Throstle Rooms', 'Old Washing Room', 'Tenters', 'Part of Gasworks' and 'Spring Water'. Similarly a rate book of 1864 describes the western side of the mill as comprising 'Tenters, Land & Spring Water, Stove, Dryhouse & Smithy, Part of Mill & Warehouse, Press shop & Counting house, Staircase, Cartshed, Part of Gasworks, Hayshed &c'.

The reference to the 'part of gasworks' presumably includes the gasometer; the evidence of the valuations suggests that the mill's gas plant was installed after 1834, and was partly located on the western side of the river, and partly on the eastern where the retort house may have been located.

The reference to 'throstle rooms' on the Catley Lane side implies that this was the location of the cotton mill, which may have been situated in the main north/south block within the present area. Likewise the grouping of throstle rooms in the 1843 valuation with the 'Store room, Staircase, Warehouse' and 'Carding Rooms' suggests that these may have been located either within that same block or in the L-shaped range to its north-west.

While the cotton mill seems to have been steam-powered, the documentary evidence shows that the engine house and boiler house were both situated on the eastern side of the river.

5.2.6 Eastern side of the river

While on the western side of the river there is visible evidence for all the main elements shown on OS mapping, the situation on the eastern side of the river is very different.

Although there are a number of sections of walling visible in the western part of this area (BM37, 38, 39, 44, 45, 46, 47, 48, 49), for the most part these do not match the building

arrangements shown on OS mapping of the mill. Instead, they appear to represent a later division and re-use of the site, not recorded on the mapping nor otherwise identified by the desk-based assessment.

The eastern area on this side of the river was not surveyed because of the density of vegetation but contains concrete beams and breeze block footings demarcating late 20th-century allotments.

5.3 Broadley Wood Mill

5.3.1 OS mapping shows the mill as principally consisting of two main elements. The first was an L-shaped block aligned roughly north/south across the front of the embankment for the mill's reservoir. The second comprised a larger block adjoining the northern side of the first at the right angle and running eastwards, with a smaller wing attached to this on the west. Both elements are shown on the 1844-8 OS map. At a later date, a wing was added to the south-east of the southern block, and is shown on the map of 1890

The site of the northern block has been landscaped removing all visible evidence of remains except for the stone and brick beds located along its southern side.

5.3.2 However, the measured survey has shown that the outline of the southern block, barring the added south-east wing, can still be traced on the ground in the form of stone walls. These comprise BWM27 on the south, BWM24, BWM20 and BWM18 on the west, BWM18 on the north, BWM 28, BWM 29 and BWM34 on the east.

The north wall of this block (BWM18) includes beam holes, suggesting the presence of at least one upper storey.

The footprint of this block also contains sections of internal walling (BWM21, BWM 26, BWM30). The more easterly of these, BWM30, continues the line of the block's eastern elevation to the north of this point. It also terminates at a possible door (BWM33). The projecting part of the block to the east of this point also has evidence of an external door in its north wall (BWM 31, BWM 32).

5.3.3 Immediately outside the western wall of the block is a stone revetment, BWM22, which aligns with a linear feature shown on OS mapping as crossing the embankment of the reservoir. The arrangement strongly suggests that this linear feature was a launder, in the form of a channel or possibly a pipe, carrying water from the reservoir into the wheel house. This same arrangement is known to have existed at Healey Bottoms Mill, built in the early 19th century, where a suspended launder fed a high-breastshot wheel, 16yds (c 14.5m) in diameter and 8ft (c 2.4m) in width (Arrowsmith 2004, 38-9). At Broadley Wood Mill, the launder was presumably supported immediately outside the mill wall on the revetment BWM22.

5.3.4 The wheelhouse itself would have been located to the east of this revetment and launder and, if positioned on the same alignment, would have been sited between the west wall of the mill and wall BWM33. This suggests that its position is in part indicated by a stone-lined depression, BWM36. According to an 1880 valuation of the mill, the 'water wheel place' at the mill measured 44ft 4in (c 13.4m) by 7ft (c 2.1m). The wheel itself is unlikely to have been much smaller than this in diameter and width, so that it was of a comparable size to that at Healey Bottoms Mill. The surveyed distance between the west wall of the mill, as now represented by BWM24, and wall BWM33 is c 14m, suggesting that the wheelhouse extended across the width of this southern block. The difference in height between the stone-lined depression BWM36 and the front, eastern face, of revetment BWM22 is c 3.5m but

this last feature is degraded with the rear rising a further c 1m in height. Between depression BWM36 and revetment BWM22 is wall BWM24 which, on this interpretation, must also be related to the wheelhouse.

There is, however, one element of difficulty in this suggested location of the wheelhouse, in that on a plan accompanying a sale of 1897 a culverted race or channel is indicated emerging from below the northern end of this block, and joining with the byewash culvert at a point under Station Road (Arrowsmith 2004, Ill 39). If this is the tailrace from the wheelhouse its position suggests that the wheelhouse itself was situated further to the north than is suggested above. However, since other evidence implies that the mill was no longer water-powered by 1897, the channel may have served another purpose. One possibility is that this was a second byewash. Although such a provision would have been rare, at Broadley Wood Mill it may have been a precautionary measure. The mill reservoir lay directly across a natural stream, with the result that a single byewash could not be closed for repair and, if accidentally blocked, could result in flooding.

5.3.5 The southern block containing this wheelhouse must have comprised a spinning mill. The 1880 valuation includes four entries for a cotton mill, one being for a build of two and a half storeys measuring 60ft by 38ft 10in (c 18.2m x 11.8m), and the others being of two and a quarter storeys, measuring 41ft 4in by 23ft 3in (c 12.5m x 7m), 41ft by 38ft 10in (c 12.5m x 11.8m), and 38ft 10in by 13ft 3in (c 11.8m x 4m). Between 1863 and 1875 the first of these was raised by one and a half storeys. The references imply that the mill block was originally of two storeys plus attic or roof space, one part of which was subsequently raised in height to four storeys. The four references may well all relate to the southern block and imply that this contained internal divisions additional to those currently visible on the ground.

5.3.6 The largest single element of the mill listed in the 1880 valuation was the ‘weaving place’, measuring 134ft by 58ft 10in (c 40.6m x 17.8m). From these dimensions it is evident that this ‘weaving place’ made up most of the northern block. Its size suggests that this was a single- storey weaving shed, but references in the valuation to rooms under its ‘1st section’ and ‘2nd section’ suggest that it stood above a lower storey, possibly accommodated by cutting into the valley side.

5.3.7 The two large engine beds, BWM15 and BWM16, are sited to the south of that weaving place. Comparison with the OS mapping suggests that these were located in an engine house which projected c 15m from the line of the eastern wall of the mill’s southern block. According to the 1880 valuation, in 1863 the mill’s engine house was three and half storeys in height and measured 41ft 4in by 16ft 6in (c 12.5m x 5m). Comparison between these measurements and those given for the ‘cotton mill’ elements of the site suggest that in 1863 the engine house formed a northern continuation of the southern block, in which case its location is now marked by beds BWM9-12. The two larger beds, BWM15 and BWM16, would then represent a second engine house built immediately adjacent to the first. It would also appear to have replaced an earlier structure on the site shown on the 1844-8 map. From the mapping evidence this later engine house was built by 1890. It may have housed the 45 hp ‘condensing engine’ which from the 1880 valuation had been installed at the mill by 1879.

5.3.8 In addition to the two main blocks, the mapping shows two detached ranges at the mill. One of these, on the southern side of the site, is formed by the stable block whose walls stand up to several metres high (BWM42-45). The mapping shows the present north-eastern room in the stable block (BWM 44) to have been divided into two, a feature not noted in the standing remains. Based on the results of the measured survey, this room was probably the two-storey ‘stable & loft’ described in the 1880 valuation as measuring 28ft 9in by 20ft 7in (c 8.7m x 6.2m), while the adjoining room on the west (BWM 43) was probably the two-storey

provender store measuring 25ft 9in by 19ft 7in (c 7.8m x 5.9m). The westernmost room, which on the mapping evidence was a later addition to the original block, was possibly the 'gig house' described by the evaluation as measuring 14ft 6in by 16ft 2in (c 4.4m x 4.9m).

5.3.9 The second detached block lay on the eastern side of site, at the entrance to the mill, alongside Station Road. There are no visible remains of this block but its eastern half appears to have largely comprised the warehouse listed in the 1880 valuation as measuring 75ft 6in by 31ft 9in (c 22.9m x 9.4m).

5.4 Broadley Stone Rubbing Mill

5.4.1 From the cartographic evidence the stone rubbing mill is known to have comprised three main structural elements set within a single range. The northernmost, and largest, of these comprised an open-sided shed, which contained the central engine house (SRM6) and two stone-lined pits (SRM4 and SRM11). Although described in the assessment as 'grinding pits', they should more properly be termed gearing pits, as they appear to have held the gearing which turned the grinding mechanism situated at ground level above. The measured survey shows both pits to have been polygonal rather than circular in plan. The southern pit is surrounded by a circular pavement of stone slabs, which also extended to the front of the shed (SRM 22) and there is slight evidence for a similar arrangement on the north (SRM5, SRM7). This circular pavement is interpreted as the rubbing floor.

The visible evidence for the extent of the shed itself is limited to a surviving section of its rear, western, wall and, on the south, by the wall of the adjoining boiler house. However, comparison with OS mapping shows that the engine house, the pits and the surrounding flagged areas would have occupied the bulk of the shed's interior.

Platforms and a flagged area at the northern end of the shed (SRM1-3) suggest that this was either a working area or a point of access/egress into the shed.

5.4.2 The measured survey has confirmed that the linear depression (SRM2) situated immediately south of the northern shed corresponds with the narrow bay shown on OS mapping, believed to have been the mill's boiler house. That mapping indicates a chimney at the western end of this bay, the position of which appears to lie immediately west of the linear depression.

5.4.3 The third main structural element shown on the mapping comprises a two-bay open-sided shed to the south of the boiler house, which may have been the 'dressing shed' listed in documents of the 1890s. The measured survey recorded several features, within the interior of the northernmost bay of this shed. These include a machinery bed (SRM15) which would have been set within a small projection at the north-west corner of the shed, and a pair of cast- iron bolts (SRM18) centrally placed towards the southern end of the bay.

5.5 Th'Owd Mill I't Thrutch

5.5.1 From the cartographic evidence it is known that the fulling mill, as rebuilt in the early 19th century, consisted of two main buildings set adjacent to the river. That on the east, which included a wing carried over the river on the surviving twin arches, was the main mill building, equipped with a waterwheel which would have powered the fulling stocks. To the west was a somewhat smaller structure; the 1880 valuation suggests that one floor of this building was used for fulling, while the other contained a 'blue room', used in the bleaching process (TMT18). While the 1844-8 OS map shows the approximate extent of these buildings, more detailed measurements are provided by the 1880 valuation. A key result of

the present survey has been to show how the footprints of both of these buildings and other buildings relate to the historic terracing of the site and the overburden of demolition material.

5.5.2 In the case of the eastern building, the positions of the northern and eastern walls are clearly identifiable, with the line of the northern wall running along the river's edge (TMT28), and the east wall being partly preserved as standing walling on the north side of the wheelpit (TMT32 and TMT 33). There are no visible remains of the southern and western walls but the position of the south-west corner seems to have been sited immediately adjacent to the revetment wall TMT16. The floor of the building appears to have been flagged (TMT26). A stone tank (TMT25) now marks the approximate position of the north-west corner of the building but this overhangs the river and has clearly been displaced. Except for the north-east and southern edges of the site, the footprint of the eastern building is largely clear of demolition material.

On the evidence of the mapping, the south-west corner of this building was also probably the location of the mill's chimney when steam power was added in the mid-19th century, but no evidence for this was identified on the ground.

Late 19th-century illustrations show a structure, possibly the boiler house, appended to the south side of the eastern mill building (Arrowsmith 2004, Ills 125 & 126). No unequivocal evidence for this appendage has been found on the ground but the approximate position of its eastern wall is marked by stone revetting (TMT34), while its southern wall may have been sited just below revetment wall TMT11, where the measured survey recorded a slight break of slope. The greater part of the site of this appendage is occupied by what is presumed to be tumble which also encroaches onto the footprint of the mill building to the north.

5.5.3 The overall size of the western range, as shown on the 1844-8 OS map, was in the order of 16m by 7m. On the evidence of the 1880 valuation, the 'blue room' which it contained measured 36ft 5in by 22ft 11in, i.e. c 11m by 7m, while the fulling mill, situated on a separate floor, was of similar dimensions, 36ft 9in by 19ft 6in. This two-storey build thus accounts for roughly two-thirds of this range. The remainder is known from the account by Maxim to have consisted of two barrel-vaulted sulphur stoves, similar to the pair still standing which abutted them on the west. These two pairs of sulphur stoves appear to be each listed in the 1880 valuation as a single-storey 'brimstone stove', one measuring 20ft 6in by 14ft 9in (c 6.2m x 4.4m) and the other 20ft 9in by 14ft 9in (c 6.3m x 4.4m). While the 1844-8 OS map shows the entire length of the western range as extending to the river's edge, an early photograph of the sulphur stoves shows that both were in fact set back from that point (Arrowsmith 2004, Ill 129). The evidence thus indicates the western side of the mill to have comprised three elements: a two-storey building containing a blue room, probably part of the 1813 construction; a single storey pair of sulphur stoves adjoining this on the east, probably part of the same phase; and a second pair of single-storey sulphur stoves, added on the documentary evidence between 1844 and 1863. Of these builds, on the measurements given in the 1880 valuation, it seem likely that only the two-storey mill continued northwards as far as the river's edge. On the ground the extent of this building can now be partly traced by the position of three or four stone tanks (TMT21-24), believed to have been used for blueing, which seem to have been sited within its north-eastern corner. On the south all three builds seem to have followed rough the same alignment. In the case of the original western range shown on the 1844-8 map, this meant that the range extended, on the south-west, to the trackway leading down to the mill and, on the south-east, towards the revetment wall TMT16. A mound of tumble now extends from that wall into the area of the south-east corner of the building (TMT16), obscuring the precise relationship between the building and the trackway at this point. Much of the site of the interior of the two-storey mill building and the

adjacent pair of sulphur stoves adjoining this on the west is now covered by demolition rubble (TMT35).

5.5.4 The trackway leading down to the mill comprises a single zigzag, the two arms of which are separated by revetment walls TMT14 and TMT15. Neither the desk-based assessment nor the measured survey found evidence that any structure was sited between those revetments and the lower arm of the trackway.

5.5.5 The upper arms of the trackway is flanked on the south by walls TMT3 and TM4. Comparison with OS mapping suggests that these were not directly related to the mid-to late 19th- century warehouse which is known to have stood in this part of the site, but rather served as revetment walls to a terraced area in which this warehouse was situated. No walling has been identified belonging to the warehouse itself.

5.5.6 At the western end of the site, comparison of the physical remains of the reservoir (TMT8) with the triangular form indicated on the mapping shows the eastern side to be obscured by tumble.

6. Survey Results: Conclusions

6.1 This concluding section considers the respective potential of the four sites for community excavation.

6.2 **Broadley Mill**

6.2.1 The survey has shown that there are visible remains, in the form of walling or earthworks, of all the main buildings and structures shown on early mapping on that part of the survey area west of the Spodden. It is probable that other remains, including walling and floor surfaces, are present within this area, at relatively shallow depth below an overburden of demolition material, soils and vegetation. Apart from the gasometer, this area is not known to contain any deep features, such as wheelpits.

Because of health and safety issues of working at depth and the potential for contamination, it is not recommended that any further clearance is carried out within the gasometer itself. Again for health and safety reasons, it is recommended that no work is carried out adjacent to the river, which would also need to be securely fenced from any other work areas on the site.

On the remainder of the site the known or likely nature of the archaeological remains would lend itself to community excavation.

6.2.2 Within the survey area to the east of the Spodden, by contrast, the visible remains largely relate to periods of use post-dating the mill, including late 20th-century allotments. While earlier remains may survive at depth, any archaeological investigation and excavation of these would first require removal of these later features.

Because of the greater uncertainty about the survival of early remains and the need to remove the later accretions, this eastern side of the study area is considered less suitable for community involvement.

6.3 **Broadley Wood Mill**

6.3.1 The measured survey has shown that much of the footprint of the cotton-spinning mill, situated in front of the reservoir embankment can be traced as wall footings. It is likely that other walls survive below the demolition material and other overburden which covers this part of the site and is present to varying heights. These remains may include other walling and floor surfaces but the depths at which such floor surfaces will be encountered is at present uncertain.

In addition this part of the site almost certainly includes the mill's wheelpit. From the documentary evidence, this is a substantial feature c13m long and c 2m wide, and potentially continuing to a depth of c 6.5m below the floor of the mill.

6.3.2 The remains of the walls on the western and northern sides of the cotton-spinning block serve as revetments and are fronted by tumble and these areas are not considered suitable for intrusive examination.

The centre of the site is covered by a series of demolition mounds (BWM35) standing 2-2.5m high. This area is considered to be good potential for community excavation, which might extend to limited excavation of the wheelpit, i.e. clearance to a shallow depth.

6.4 Broadley Stone Rubbing Mill

6.4.1 The potential of Broadley Stone Rubbing Mill for community excavation is considered to be low.

6.4.2 The visible remains suggests that any surviving evidence for its external walling may be fairly insubstantial, in keeping with the building having largely comprised a range of single-storey sheds. The most promising areas for community excavation may be the site of the boiler house (SRM14), including the chimney at its west end, and of the bay to its south which includes a number of visible features (SRM15-19).

6.4.3 The open pits (SRN4, 6 and 11) in the northern part of the site would need to be securely fenced off during any community excavation, limiting the potential for any work in this area.

6.5 Th'Owd Mill I't Thrutch

6.5.1 On health and safety grounds, Th'Owd Mill I't Thrutch is not considered to be a suitable site for community excavation.

Sources

Sources

Arrowsmith P 2004 Healey Dell An Archaeological Desk Based Assessment, unpublished report, University of Manchester Archaeological Unit.

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The on-site work was monitored by Norman Redhead, Assistant County Archaeologist, Greater Manchester Archaeological Unit.

Thanks go to Richard Whittle and the team at Healey Dell Visitor Centre.

Fig 1: Broadley Mill measured survey

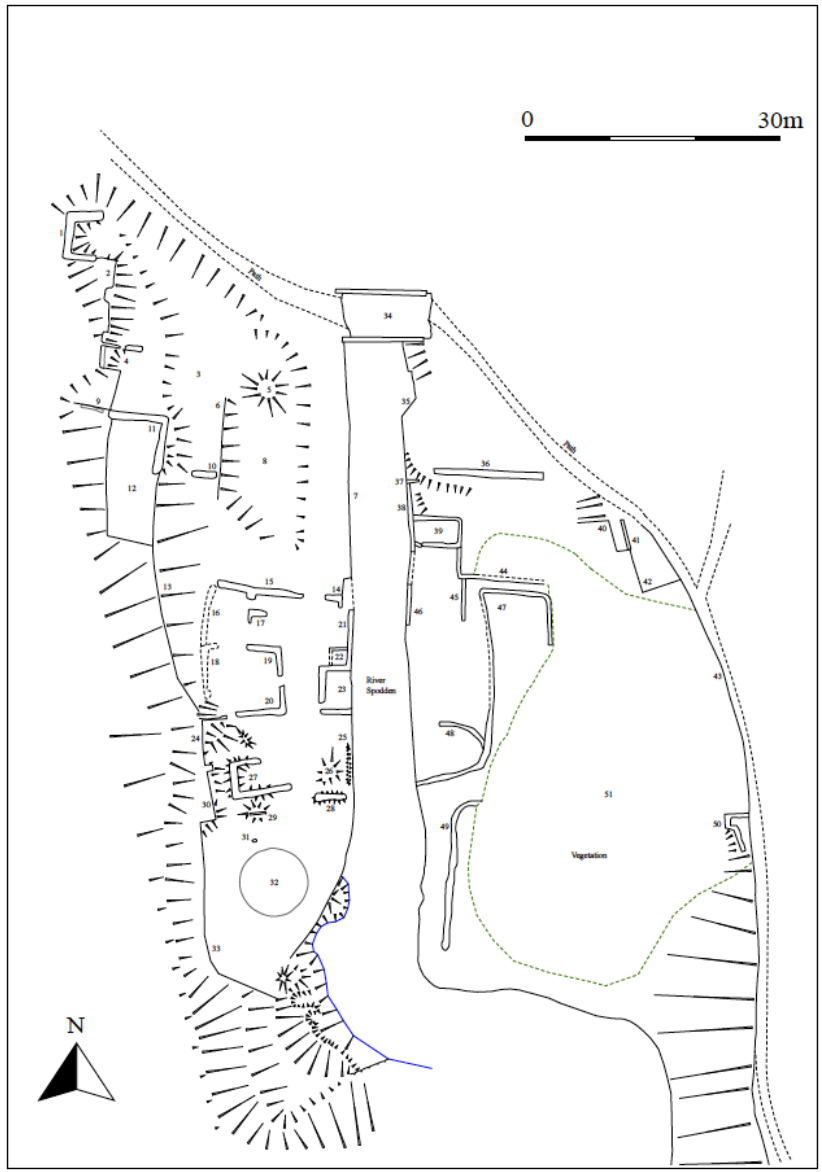


Fig 2: Broadley Wood Mill measured survey

Fig 3: Broadley Stone Rubbing Mill measured survey

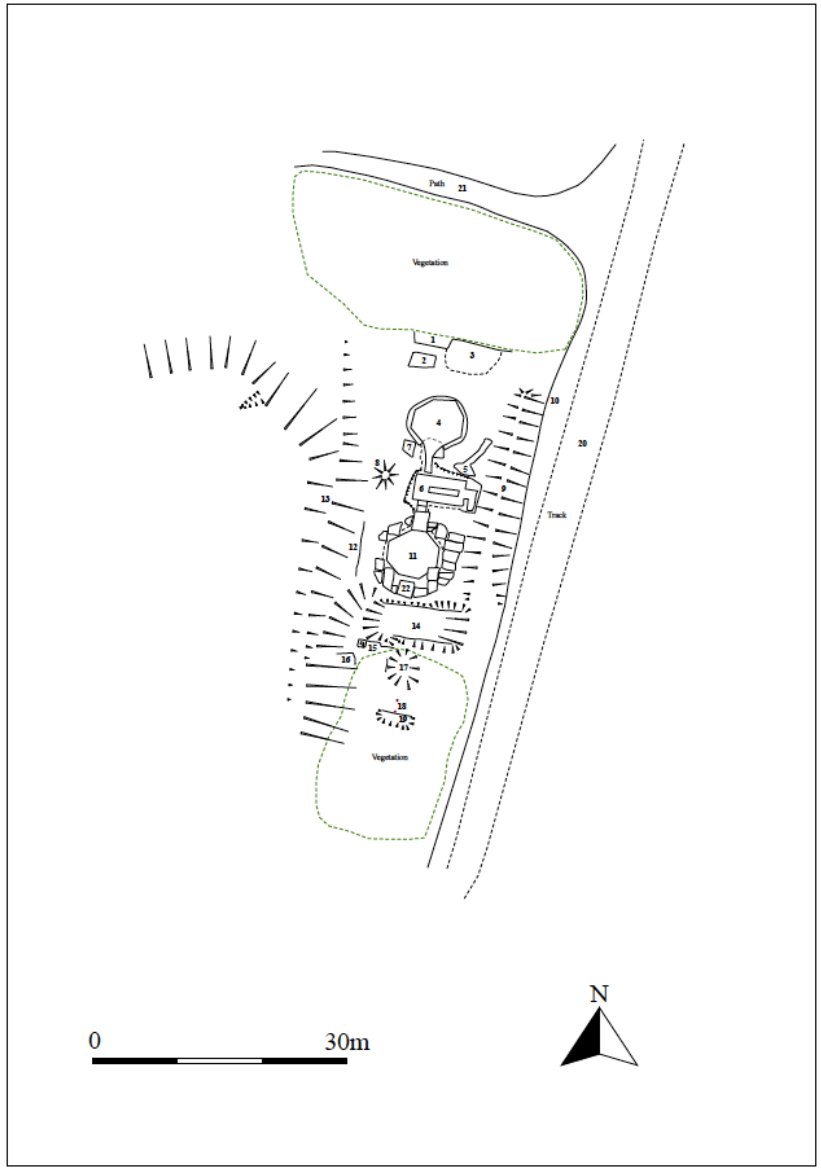


Fig 4: Th'Owd Mill I't Thrutch measured survey

Fig 5: Broadley Mill photographic viewpoints

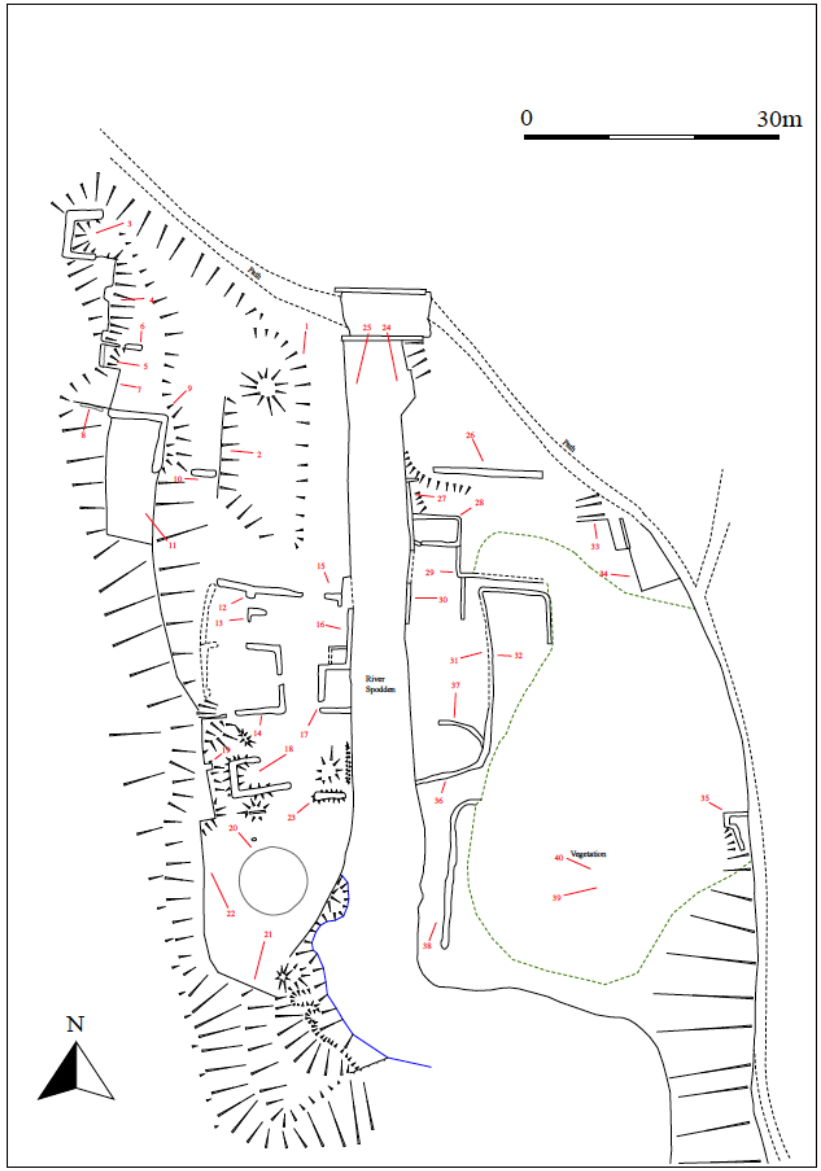


Fig 6: Broadley Wood Mill photographic viewpoints

Fig 7: Broadley Stone Rubbing Mill photographic viewpoints

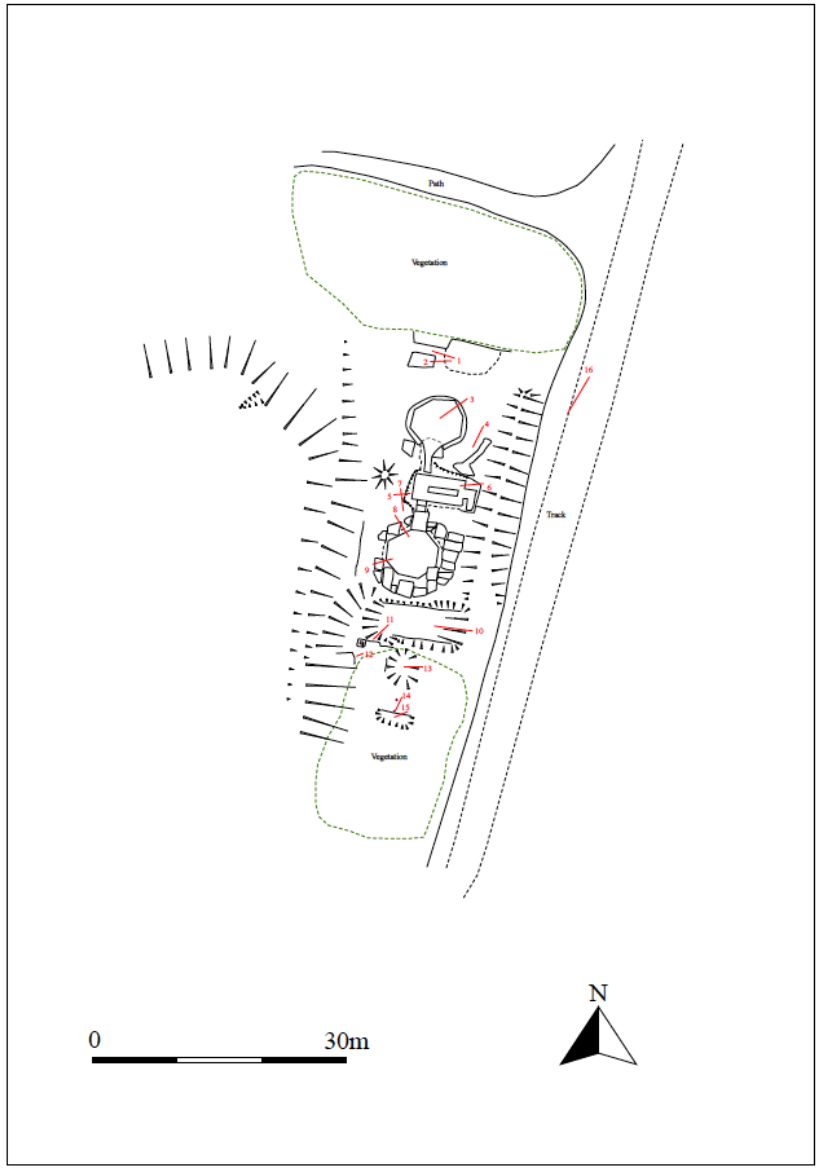


Fig 8: Th'Owd Mill I't Thrutch photographic viewpoints

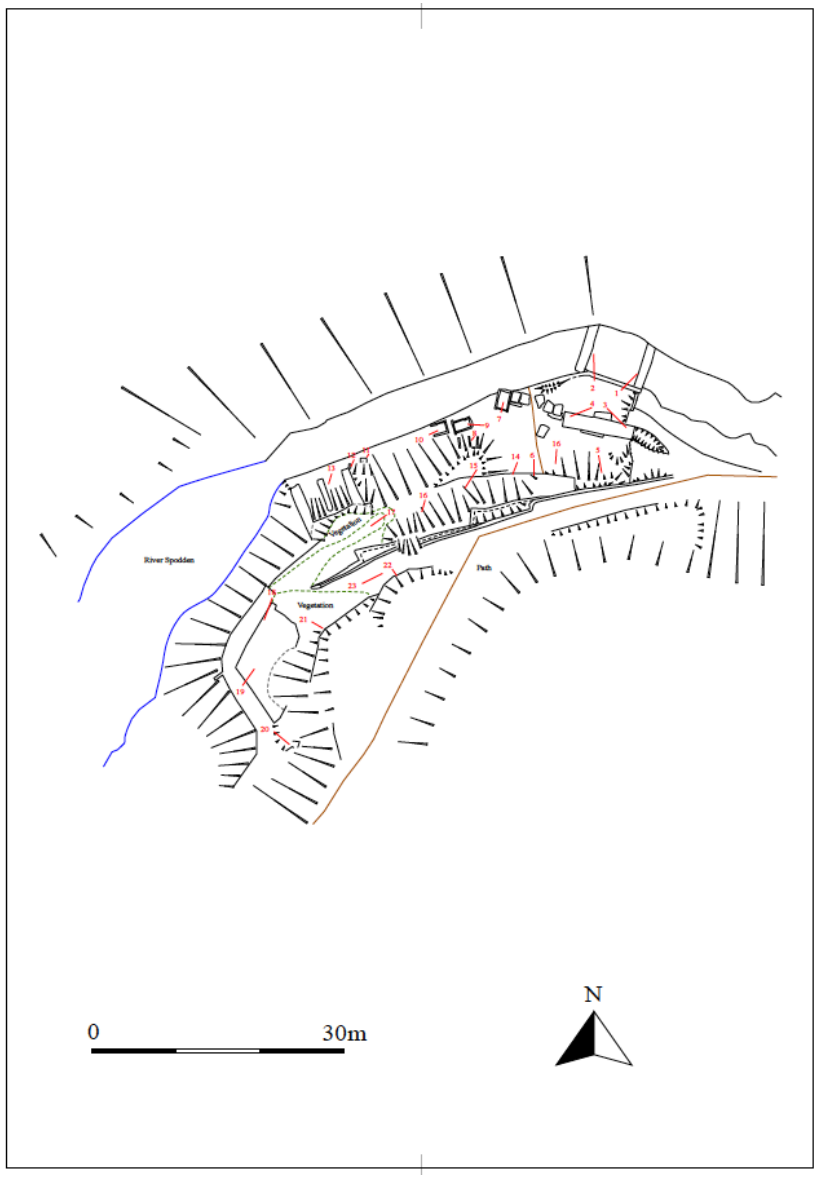


Fig 9: Broadley Mill measured survey with extent of mill buildings as shown on the 1890 1:2500 OS map (overlaid in pink)

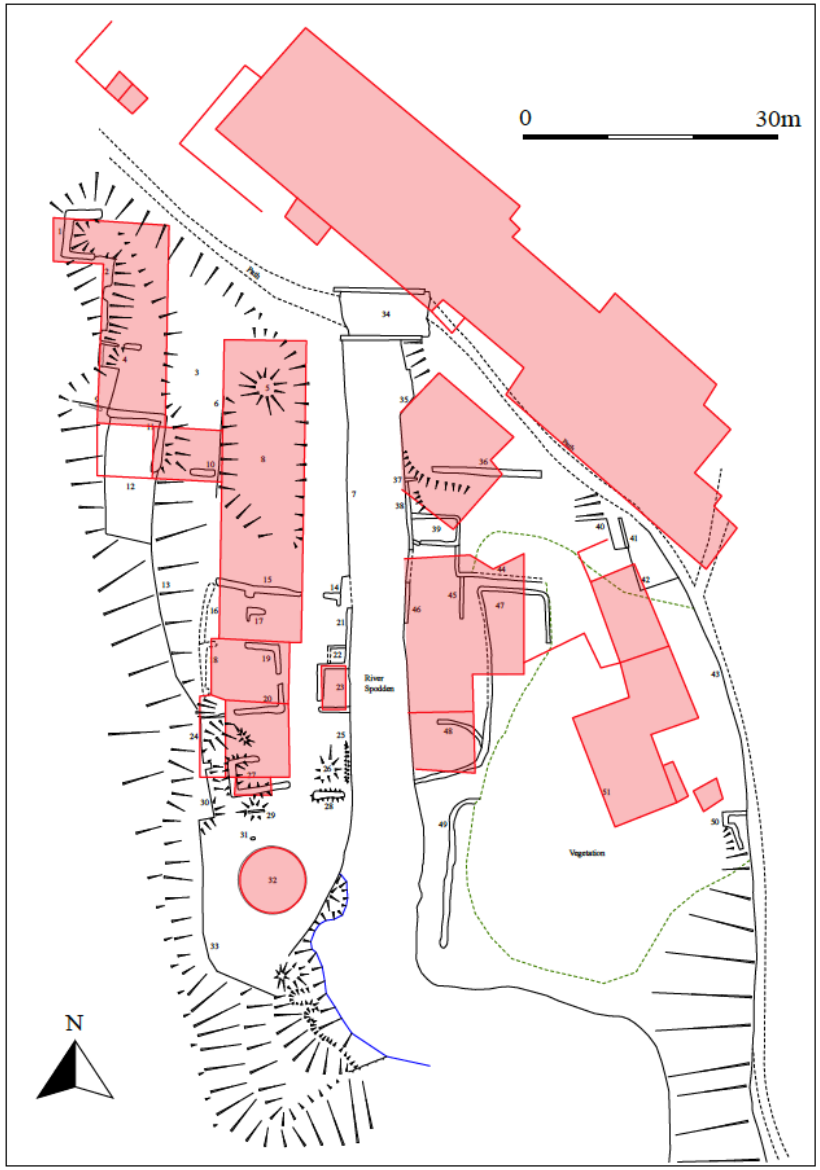


Fig 10: Broadley Wood Mill measured survey with extent of mill buildings as shown on the 1908 1:2500 OS map (overlaid in pink)

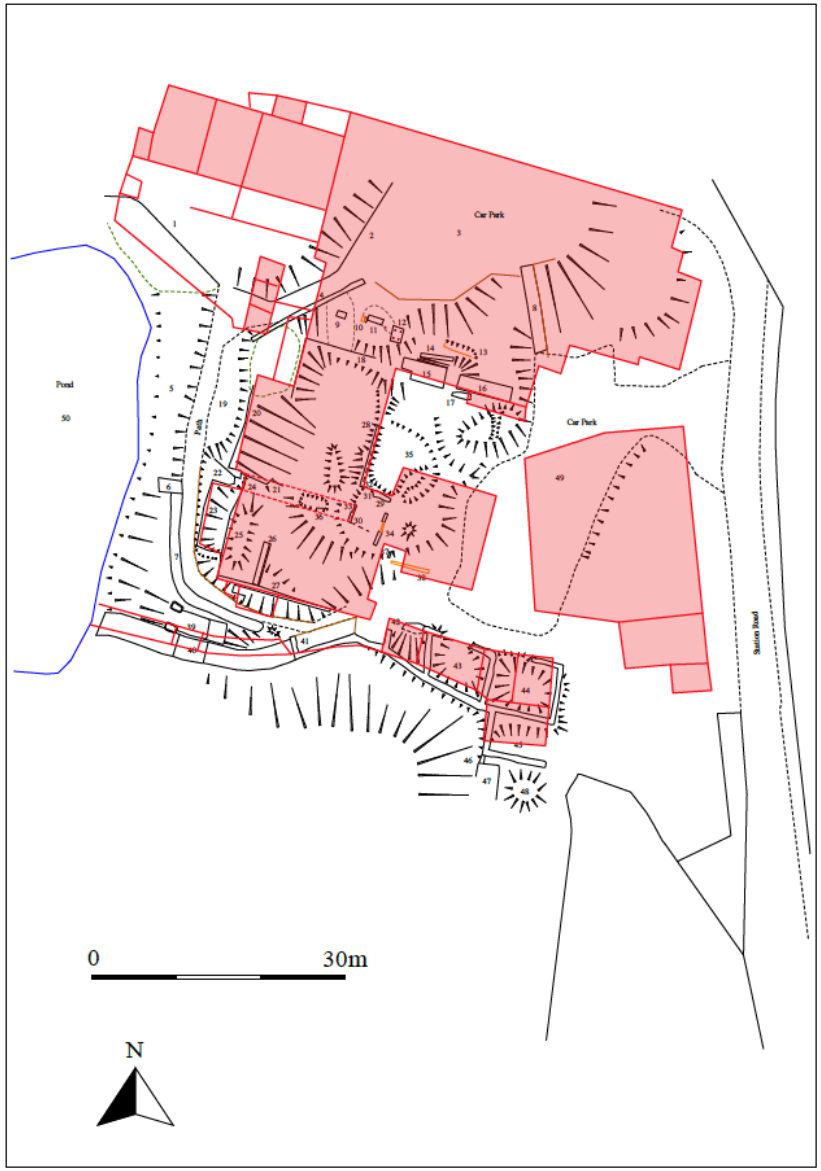


Fig 11: Broadley Stone Rubbing Mill measured survey with extent of mill buildings as shown on the 1908 1:2500 OS map (overlaid in pink)

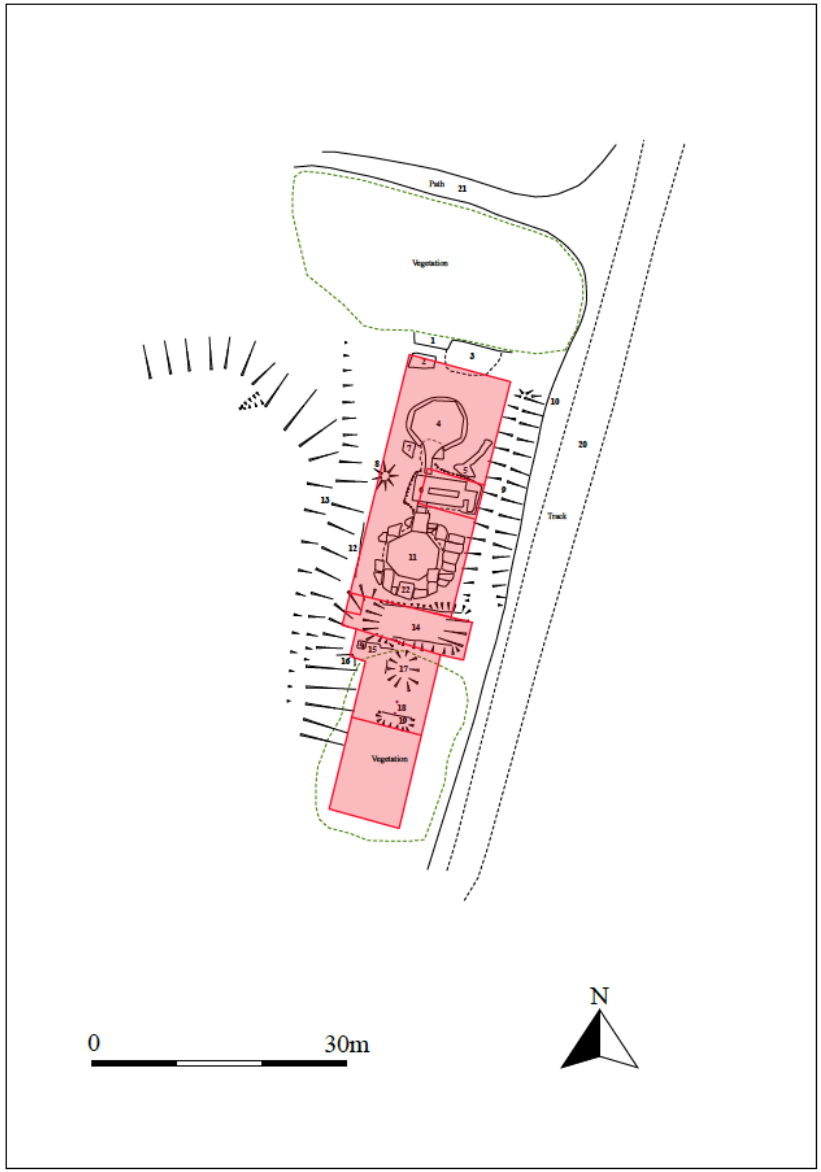


Fig 12: Th'Owd Mill I't Thrutch measured survey with extent of mill buildings as shown on the 1844-8 6" and 1890 1:2500 OS maps and other documentary sources (overlaid in pink)

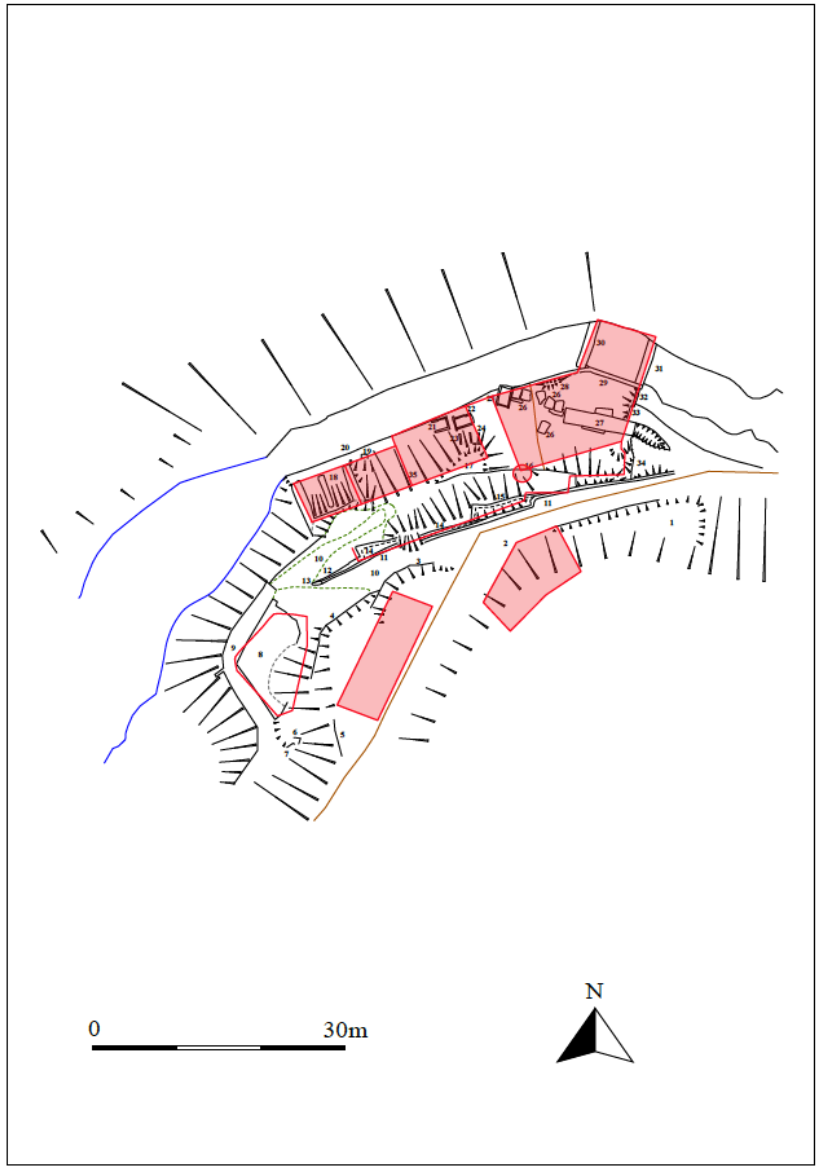


Fig 13: Broadley Mill measured survey with current interpretation

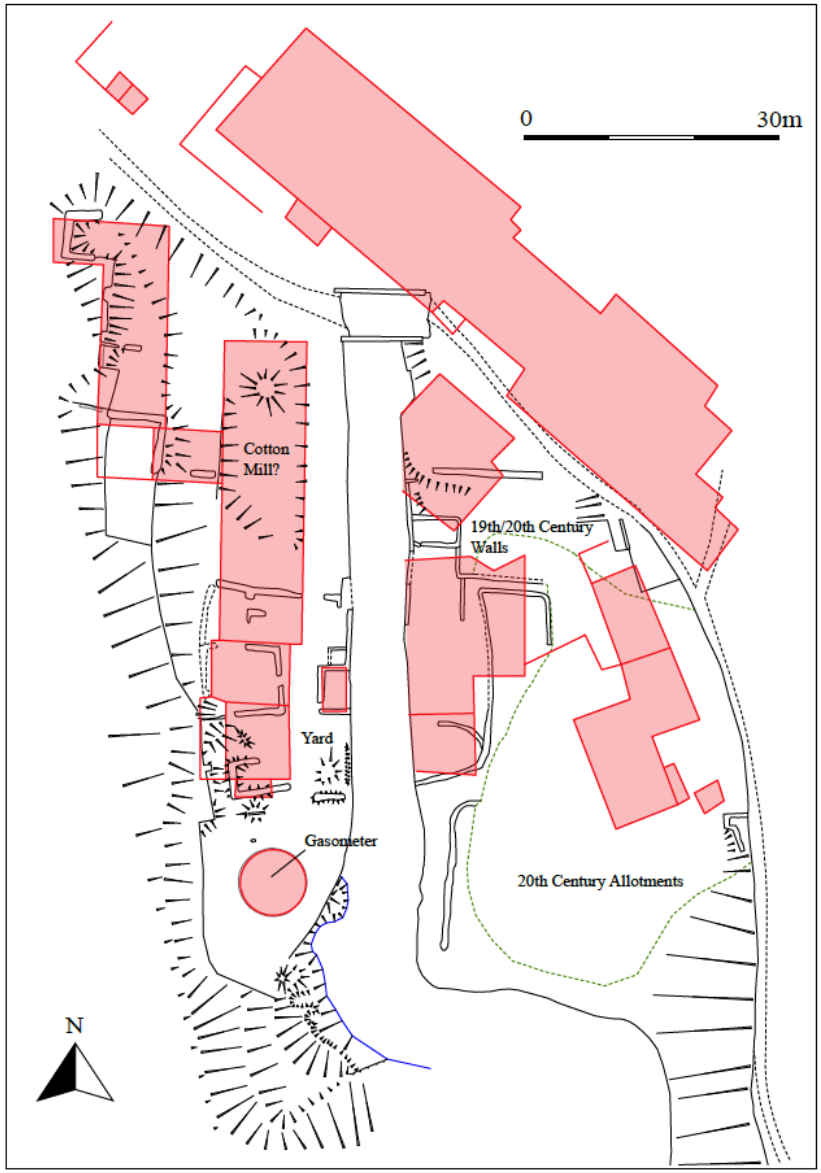


Fig 14: Broadley Wood Mill measured survey with current interpretation

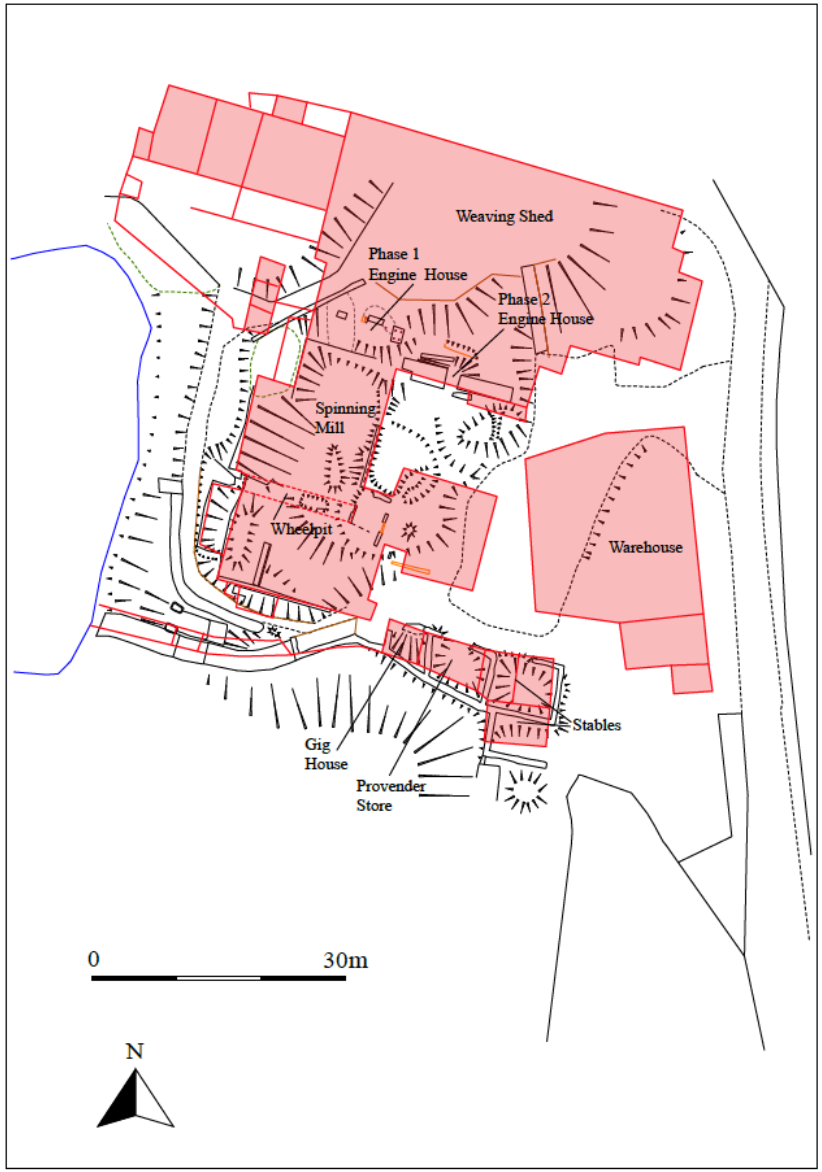


Fig 15: Broadley Stone Rubbing Mill measured survey with current interpretation

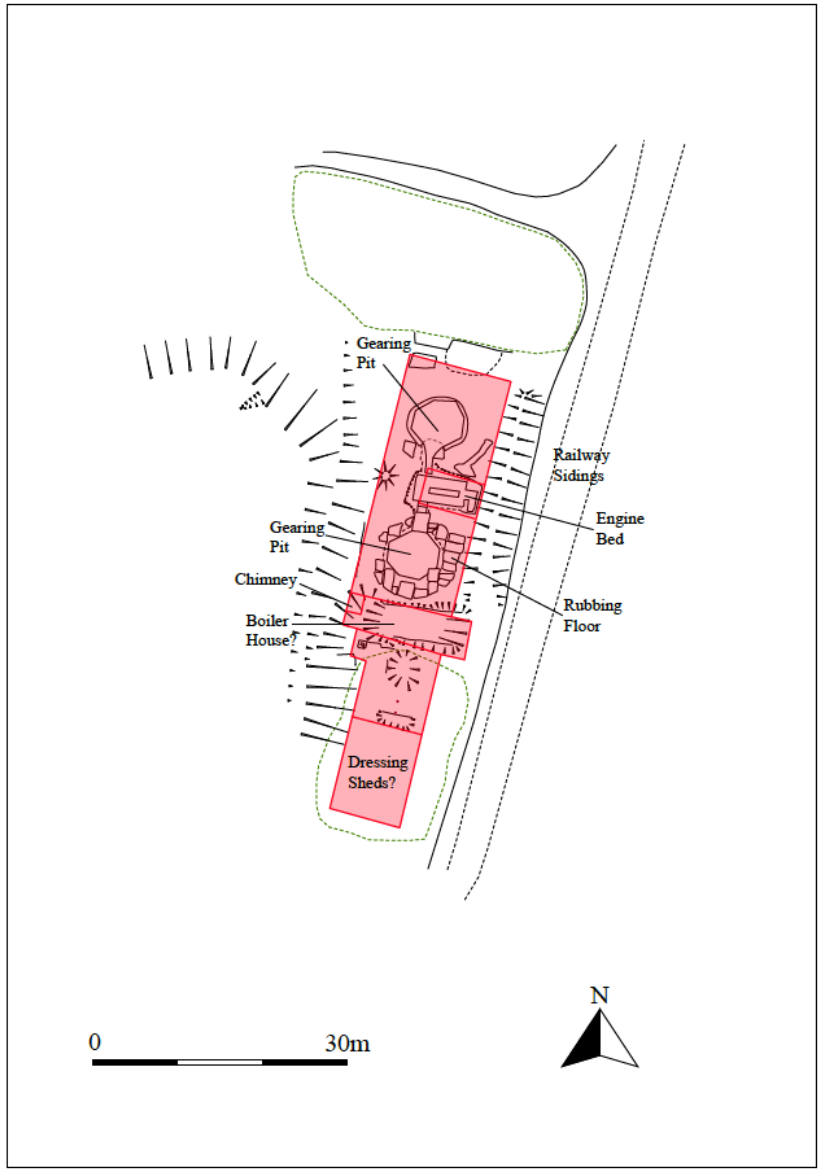
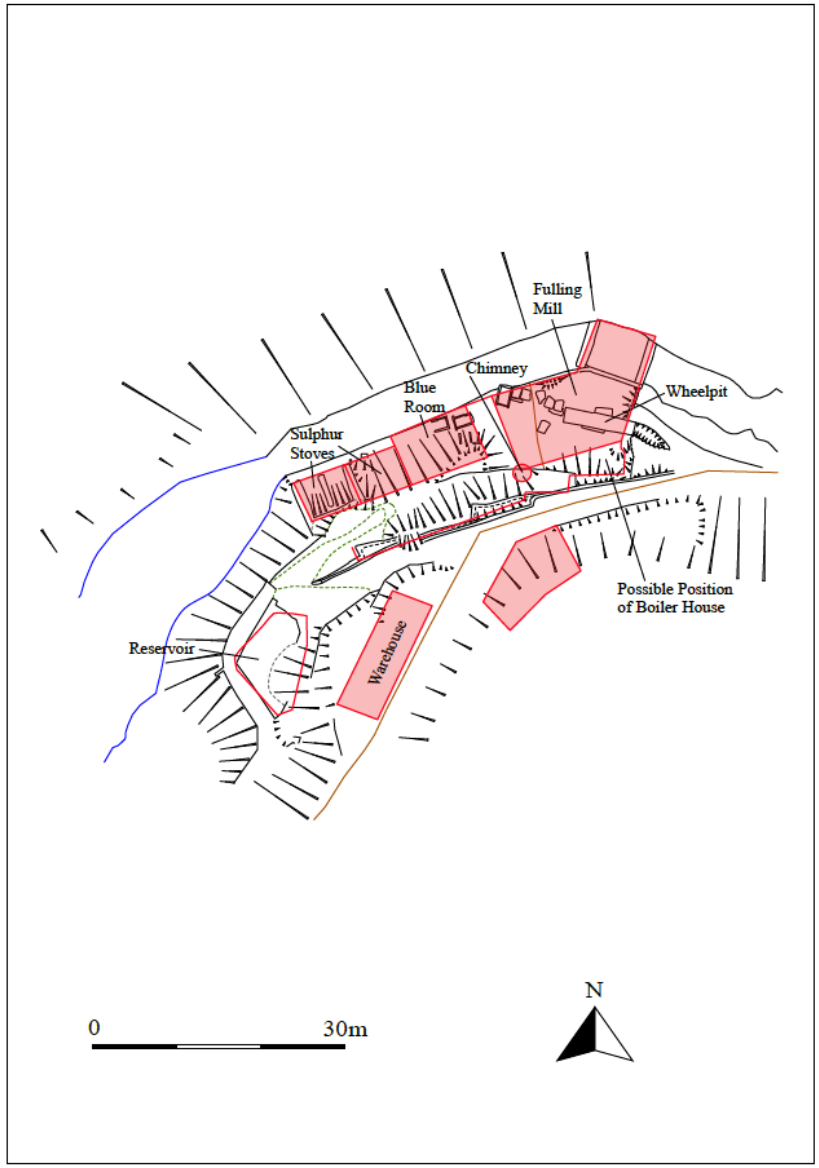


Fig 16: Th'Owd Mill I't Thrutch measured survey with current interpretation



Appendix 2: Project Summary Sheet

PROJECT NAME: Healey Dell Nature Reserve, Dell Road, Rochdale			
PROJECT LOCATION:	COUNTY Greater Manchester DISTRICT Rochdale PARISH/TOWNSHIP		NGR(S)centred: SJ 8803 1613
TYPE OF PROJECT: (SPECIFY)	EXCAVATION FIELD SURVEY GEOPHYSICAL SURVEY ENVIRONMENTAL STUDIES	EVALUATION WATCHING BRIEF DESK BASED STUDY BUILDING SURVEY	OTHER
RESPONSIBLE ORGANISATION: University of Manchester Archaeological Unit			PROJECT CODE: HDS06
STAFF: Graham Mottershead, Pete Arrowmith, Sarah Craig, Mike Higgins, Kieran Power, Adam Thompson			
COMMISSIONED/FUNDED BY: Dandar			
REASON(S) FOR WORK:	RESEARCH/TRAINING INTERPRETATION/DISPLAY CONSERVATION/MANAGEMEN	DEVELOPMENT ASSESSMENT OF POTENTIAL	
DATE PROJECT STARTED : 30th January 2006		DATE FINISHED :20th March 2006	
SUMMARY OF RESULTS :			
REPORT REFERENCE: UMAU 2006()			
PROPOSED ARCHIVE REPOSITORY (name and address): UMAU, Address as below			
CONTACT NAME (FOR INFORMATION/ENQUIRIES): Dr Mike Nevell ADDRESS: University of Manchester Archaeological Unit, Architecture & Planning Building, University of Manchester, Oxford Road, Manchester, M13 9PL. TEL: 0161-275-2314; FAX: 0161-275-2315; E-MAIL: umfac@man.ac.uk			