

Hut 34, Thurns Head Quarry, Whitworth

A Photographic Building Survey

By J.M. Trippier Archaeological and Surveying Consultancy



September 2008

Clients: Pennine Lancashire Groundwork

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EXECUTIVE SUMMARY

Thurns Head Quarry is a well-preserved example of a late 19th century sandstone quarry. It is extremely rich in associated features, including numerous structures and earthwork platforms representing quarryman's shelters, storage buildings and processing areas. Along with other monuments in the vicinity and beyond these are evocative reminders of the once important Rossendale stone quarrying industry. However many of the structures are in poor condition and require urgent remedial conservation work in order to preserve their integrity. Groundwork Pennine Lancashire has chosen one such structure, *Thurn 34*, which they have interpreted as being a *quarrymen's hut*, for early attention and have prepared a brief to guide the conservation process. A requirement of the work is an archaeological recording and monitoring programme. This report fulfils that requirement.

1. INTRODUCTION

- 1.1 The borough of Rossendale is located in Southeast Lancashire and covers an area of approximately 140 square kilometres. Whilst it is situated on the edge of industrialised towns such as Burnley and Rochdale, with the city of Manchester only 29 kilometres to the south, the landscape character is one of enclosed uplands, cut by steep valleys lined with linear development, with a large moorland plateau in the south east of the borough (*Supplementary Planning Guidance Landscape and Heritage Adopted SPG 2001 – 2016*). The moorland plateau contains an unusually complex cluster of quarry sites ranging from the 18th Century to the present day. The main landowners are Lancashire County Council, Rossendale Borough Council and United Utilities. The *Valley of Stone* project is intended to create a regionally significant resource focused on the stone quarrying industry but not exclusive to it. The overall importance of the conservation value of the *Valley of Stone* is reflected in its inclusion within the South Pennines Heritage Strategy.
- 1.2 The *Valley of Stone* Management Plan has been prepared on behalf of the Heritage Lottery Fund and a working party comprising representatives from the agencies who hold management responsibilities for sites within the *Valley of Stone*. The Plan is not prescriptive or binding on landowners and management agencies, but aims to be framework for co-ordinated management and the development of partnerships. The Plan comprises a statement of the objectives necessary for the long term preservation of the Valley of Stone and its landscape setting. It aims to balance the interests of conservation and public access with the other needs of

- those who live and work in the area and provides a framework for the holistic and proactive management of the landscape thus helping to ensure that the special qualities of the *Valley of Stone* are sustained and preserved for future generations.
- 1.3 The implementation of the Plan will be achieved by the various agencies and partnerships adopting the *Valley of Stone* objectives and carrying out their management responsibilities within the strategy. Groundwork East Lancashire is monitoring and working with landowners to manage the sites for the duration of the project. Short and medium-term objectives include, inter alia, the enhancement and conservation of the landscape character of the *Valley of Stone* and the halting of ongoing degradation of sites and monuments that have been considered archaeologically significant. Thurns Head (Thorns or Turns Head) Quarry is a well-preserved example of a late 19th century sandstone quarry. There is a high level of survival and high potential for further archaeological excavation. The quarry is extremely rich in associated features, including numerous structures and earthwork platforms representing quarryman's shelters, storage buildings and processing areas, which should aid considerably in understanding how the quarry functioned. Altogether the quarry rates highly in terms of educational, amenity and group value (LUAU 1997, 24-5). However many of the structures are in poor condition and require urgent remedial conservation work in order to preserve their integrity.
- 1.4 Groundwork Pennine Lancashire has chosen three structures, which they have interpreted as being *quarrymen's huts*, for early attention and have prepared a brief to guide the conservation process. Two of these structures are identified as items *Thurn 9 and Thurn 14* in the gazetteer within (ULAU 1997) the third has been discovered subsequently and has been given reference no. *Thurn 34* by Groundwork Pennine Lancashire. Their brief specified that a suitably qualified archaeologist should photographically record, monitor and report on the findings during the conservation of the structures. J.M. Trippier Archaeological and Surveying Consultancy of Bolton were awarded the contract for this work. Mr. John Trippier BA (Hons.), MRICS, PIFA is a Chartered Surveyor and Practitioner of the Institute of Field Archaeologists with over 30 years experience of surveying and recording buildings of many types. He carried out this work in association with Stephen Baldwin, Heritage Consultant, who has many years experience of landscape interpretation on community funded projects. This report details the survey of hut *Thurn 34* where as of this time the conservation work is furthest advanced.

2. SITUATION OF PROPERTY

- 2.1 Location: Thurns Quarry lies within the Whitworth Lower End division of the township of Spotland and the ancient parish of Rochdale. It is located on the southern edge of the Cowm valley with Cow Clough Pasture to the west and Goat's Hill Rough to the south. It is situated between NGRs SD 872190 and 878185 at

elevations between OD 325 and 350m. The Grid Reference of *Thurn 34* is approximately 87441904. Its general location is indicated on the accompanying Plan 1 by a red arrow and, more precisely, on Plan 2. The quarry can be accessed by trackways from the east that follow the old tram way from Hall Fold.

- 2.2 Geographical setting: The geology of the Rossendale district is dominated by the Millstone Grit series which is interspersed with deposits of shale and finer sandstones. These sandstone deposits have particular geological qualities which have been recognised and exploited in varying degrees since at least the medieval period. Until the late-18th century this consisted of relatively small-scale, *ad hoc*, extraction in order to obtain building stone for local requirements. With improvements in transport between 1770 and 1840, coupled with the increased demand for local building stone, the scale of quarrying in the region increased, and saw the rise of a number of substantial workings. The mid to late-19th century was characterised by a significant expansion in quarrying brought about by increased urban growth, mechanisation and improved stone-working techniques. This period also saw the construction of railways into Rossendale, the construction of the mineral tramways and the establishment of a number of large stone processing sites (UMA 2003, 4 - 5).

3. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.1 Thurns Head Quarry was the subject of an archaeological assessment report by the University of Lancaster Archaeological Unit in 1997 (LUAU 1997).
- 3.2 Thurns Head Quarry, which now appears as one quarry, was historically developed as three: Thurns Head, Hey Lane and Goat's Hill. It is known that James Jackson and Schofield & Lord had flag quarries in the area in the 1830s and there were six quarry masters at work in 1853. The 1st edn. OS 6" map of 1851 shows Thurn's Head as quite separate from the other two which were located to the south east and from which it was divided by Hey Lane. By the time of the 1st edn. 25" map of 1895 they had become merged even though they retained their separate names and Robert Jackson & Sons appear to have been the sole operators. In 1896 they were employing three underground workers in a stone mine and 10 surface workers as well as the workforce at Schofield Hey (Rothwell 2008, 52). The 1895 map shows a track extending onto the area where Thurns 34 is situated and it may well be that a rectangular structure shown at the head of that track is in fact the subject structure (see Fig.5)
- 3.3 The quarrying methods appear to have been hillside outcroppings and mining and the quarries were served by a gravity operated single track 2'6" tramway with 4 ton iron wagons which ran $\frac{3}{4}$ mile to Hall Fold Staithe (LUAU) Fold Head (Rothwell). This does not appear on the 1851 map and it seems likely that it was developed in the 1880s. It seems to have been abandoned soon after 1903 when Henry Heys and Co. took over Ab Top Quarry which it also served (Rothwell 2008, 56).

- 3.4 The OS 25" map of 1909 shows the quarries only slightly enlarged with the main extension to the quarrying since 1895 being at the central north of Goat's Hill. Former tramways were now shown only as 'trackways' but a new length of tramway runs to a small quarry at the south west corner of Thurns Head (possibly a drift entrance?) (ULAU 1997, 24). The quarry closed in 1909 when Jackson's company failed (Rothwell 2008, 56) and it is shown as 'disused' on the 1929 edition of the 25" OS map. By that time the rectangular structure, which may have been Turns 34, and the adjacent track (see para. 3.2 above) are no longer shown.

4 METHODOLOGY

- 4.1 This "as built" record accords with the requirements of English Heritage's Level 2/3 Record and comprises a written account, a drawn record comprising a scaled plan and elevation and a photographic record. The photographic record was made using a Fuji FinePix S5700 digital camera. A two metre ranging rod was included in general shots and a smaller scale bar was used in the more detailed ones. A full photograph index is included with this report. Photographs were taken before and after initial conservation work took place. The scaled drawings were measured on site with hand held tapes and were drawn with an AutoCAD package.

5. PHYSICAL DESCRIPTION

- 5.1 *Thurn 34* is located in the north-eastern corner of the quarry site at Ordnance Survey grid reference SD87441904. Its general location is indicated on the accompanying plan no.1 by a red arrow, and more precisely on plan no.2. It is sited in a hollow surrounded by grassed spoil heaps and piles of discarded flags to the north, south and west (see **front cover**). A grassed bank abuts the west wall of the hut and is defined by a dry stone revetment wall returning off the hut's south-west corner (**Plate 1**). Low grass banks were observed on the north, west and east sides, and there is a level ground beyond the entrance to the south (see front cover) where there is a large pile of discarded stone flags (**Plate 2**). The dimensions of the structure are 3m (east-west) x 3.2m (north-south) (**Fig 3**). The walls are constructed in roughly squared sandstone blocks laid to courses (see **Plate 3**). Walls are 0.4m thick and block sizes range from a minimum of 0.30 x 0.15m to a maximum 1.5 x 0.4 x 0.35m in the north-east corner (**Plate 4**). Bonding material appears to be clay. There is a doorway to the south which was just discernable prior to cleaning (position marked by short photographic scale on **Plate 3**). No window openings survived, although a large sandstone cill found in the adjacent pile of flags may indicate a former window. Following removal of loose or fallen stone the doorway became clear and it was also noted that the hut floor comprised square sandstone flags 0.50 x 0.50m in size (**Plates 7 & 8**). Corrugated iron sheets found in the rubble may indicate a former roofing material. No other 'finds' were discovered.

6. CONSERVATION REQUIREMENTS

- 6.1 Some further conservation work is required on this structure beyond the clearing away of loose stones and rubble that has already taken place. In particular the south-east corner is largely made up of stone that now lie awry especially in the upper courses. It is recommended that these stones be straightened up and re-laid. On first sight the structure appears to have been of dry stone construction. However this survey revealed that the stonework was probably bonded with clay. It is not unusual for the clay to be used to bed irregular stones and for it to leach away in wet conditions leaving the appearance of dry-stone (Brunskill 1987, 38). It is for consideration whether clay should now be used again in the rebuilding process or whether dry-stone will suffice. The latter would be acceptable archaeologically as it does in fact reflect the leaching that has taken place and is, in any event, a non-intrusive method of reconstruction.
- 6.2 It is not recommended that any rebuilding takes place beyond the obvious remedying of obviously defective stonework as mentioned above. It should be borne in mind that, although the structure has been referred to as a quarryman's hut there is in fact no evidence that this was the case. The survey of the quarry by LUAU noted numerous structures that could have been quarryman's shelters or storage buildings but did not allocate particular uses to individual structures. Further more in the absence of photographic evidence it is not clear what these structures looked like when completely upstanding. For these reasons we would not recommend rebuilding Thurn 34 beyond its existing height. It may be possible to prevent renewed deterioration by capping the walls with large slabs similar to those on the east and north walls of the existing structures providing they can be distinguished from the originals (eg by a dated inscription?).
- 6.3 The conservation and continuing maintenance of the site should be undertaken to the relevant standards set by relevant bodies such as the Institute of Field Archaeologists.

7. RESULTS

8. ARCHIVING

- 8.1 An archive has been prepared in accordance with the recommendations of *The Management of Archaeological Projects* 2nd ed.1991. The archive will be deposited at the Lancashire County Record Office in Preston. Copies of this report will be sent to the Lancashire County Historic Environment Record also in Preston.

9. BIBLIOGRAPHY

Abbreviations

LUAU Lancaster University Archaeological Unit

OS Ordnance Survey

UMAU Manchester University Archaeological Unit

Maps

OS 1851, 1:10560 scale Lancashire Sheet 80, Southampton

OS 1893, 1: 2500 scale Lancashire Sheet 80:8, Southampton

OS 1929, 1: 2500 scale Lancashire Sheet 80:8, Southampton

OS 1964, 1: 2500 scale Lancashire Sheet SD 8718, Southampton

OS 1964, 1: 2500 scale Lancashire Sheet SD 8718, Southampton

Published Works

Brunskill, R., W., 1987, *Illustrated Handbook of Vernacular Architecture*, London

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English Heritage, 2006, *Understanding Historic Buildings: a guide to good recording practice*, Swindon

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LUAU 1997, *Rossendale Quarries: Archaeological Assessment Report*, unpublished client report

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*An Archaeological Recording and Monitoring Programme at
Hut 34, Thurns Head Quarry, Whitworth, Lancashire*

APPENDIX 1

Schedule of Work

for

Archaeologist

June 2007



1.1 Summary of brief

This brief has been produced to guide the conservation process at Lee Quarry Saw Shed, Facit Chimney and 4 Quarrymen's huts at Thurns Head. The site archaeologist will photographically record, monitor and report on the findings during the conservation of the structures *in situ*.

1.2 Site location and description

LEE QUARRY SAW SHED BACKGROUND INFORMATION

Introduction

Lee quarry extends between SD 863 208 and SD 870 210, approximately 1km south of Rockcliffe, with Lee Moss to the south and Holden Moor to the east. Historically, the quarry lay within the Brandwood Lower End subdivision of the Spotland Township (Rochdale parish).

Historical Summary

Working life: early nineteenth century to 1980's

Geology: Upper Haslingden Flags and shale with Rough Rock to south east.

Methods included hillside outcroppings, open pit working and mining. Extensive mechanisation from at least 1880's, including steam powered cranes, blasting, pneumatic drills.

Products: including flags, kerbs, manhole covers, later concrete flags and kerbs and road stone.

FACIT QUARRY CHIMNEY BACKGROUND INFORMATION

Introduction

One of the most obvious tramway inclines in the district ascends the hillside west of Facit, diagonally in a N.N.E. direction. Originally the route linked sidings which joined the main Facit line, South of former Facit Station at SD 886 188.

Historical summary

An extensive system, with an incline developed originally by the large firm Henry Heys in 1870/71 presumably as soon as the Lancashire and Yorkshire Railway Rochdale branch line came up the Spodden Valley to Facit in 1870.

1.3 Planning background

Lee quarry Saw shed and Facit chimney are owned by Lancashire County Council. Thurns Head is owned by United Utilities but leased to Rossendale Borough Council and Cragg Quarry is owned by Rossendale Borough Council.

The designations for the sites include:

Lee Quarry is the site of a geological SSSI,

Thurns Head SMR Entry and RIGS site

1.4 Archaeological and historical background

Historical background for the conservation sites can be found in Lancaster Universities Quarry survey 97 and Manchester Universities Archaeology Unit's survey 2003

1.5 Requirement for work

The archaeologist will photographically record the heritage structures before any intervention and the following conservation process and provide a report of the results. The results should be illustrated where necessary by the use of drawings and photographs, and by supporting data contained in the appendices.

The archaeologist will work to the By-laws of the Institute of Field Archaeology Code of approved practice for the regulation of contractual arrangements in field archaeology Sept 2002.

1.6 Stages of work and techniques

1. Pre intervention phase (recording *in situ* structures)
2. Watching Brief during conservation of structures Archaeologist to spend four days per week whilst conservation work is in progress.
3. Post-fieldwork analysis and report

1.7 Monitoring arrangements

Work will be monitored and approved by the county archaeologist.

1.8 Archive deposition

The final destination of the archive (records and finds) should be noted in the report.

1.9 Publication and dissemination

Technical terminology (including dating or period references) should be explained where necessary for the conclusions to be understood by a non-archaeological audience.

1.10 Other factors (including contingency)

The field archaeologist will have the power to suspend the conservation phase if unexpected finds call for further investigation. The county archaeology service will be informed of any significant finds and their approval will be necessary before work can resume.

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GROUNDWORK Pennine Lancashire (Archaeologist) SCHEDULE OF WORKS						
A. Recording, Watching Brief, Reporting						
ITEM	DESCRIPTION	NO	UNIT	RATE	£	p
A.1	<p><u>Preliminaries</u> Basic level of measured survey, along with photographic record, before conservation works start. This would equate to a survey between levels 2 and 3, as set out in 'Understanding Historic Buildings' a guide to good recording practice' (EH, 2006). Including all elements of a level 2 survey (p.140 with addition of a general site plan at 1:500 – 1:1250 (based on OS Mastermap) of each site; measured plans and elevations at an appropriate scale (1:20) sufficiently detailed as to allow full understanding of the remains when used in conjunction with the site photographs (i.e. a 'stone by stone' drawing is not required, but an appropriate outline should be drawn, with openings, building lines, etc. marked) If clear and unimpeded photograph(s) can be produced, however, that render a drawn elevation superfluous, then this may be done. Sites to be included: Lee Quarry Saw Shed, Facit Chimney, Quarry Men's Huts at Thurns Head x 3, Quarry mans hut at Cragg x 1, flag fence at Back Cowm.</p>	34	Days			
A.2	<p><u>Watching Brief</u> Archaeologist to be on site 24</p>	7	Days			
A.3	<p><u>Reporting</u> Archaeologist to produce a report of the conservation and any finds/ recommendations</p>	7	Days			

APPENDIX 2: FIGURES

Fig. 1: Site Location Map

Fig. 2: Site Plan

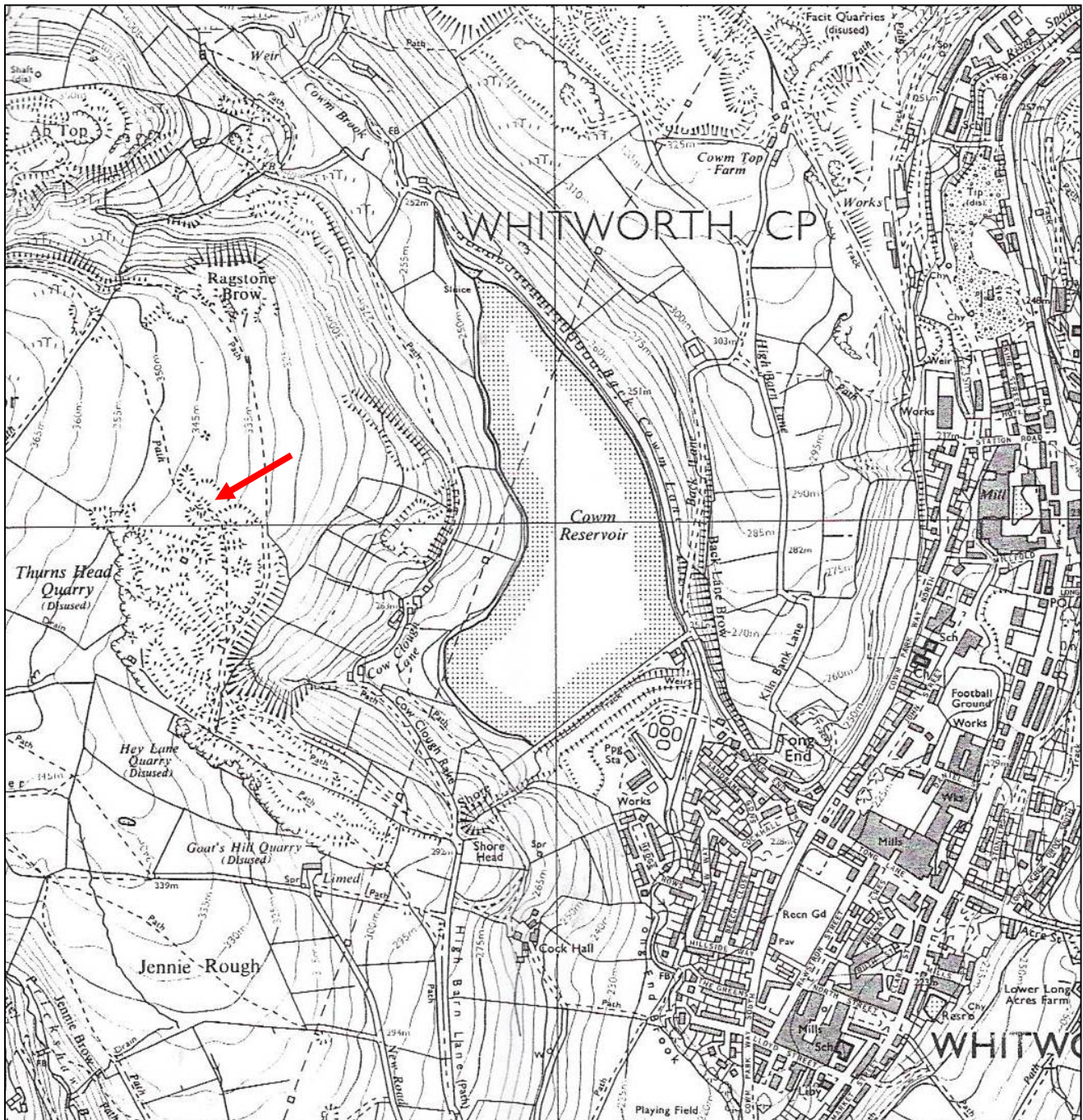
Fig. 3: Drawings

Fig. 4: OS 6" Lancashire Sheet 80, 1851

Fig. 5: OS 25" Lancashire Sheet 80:8, 1895

Fig. 6: Photographic Register

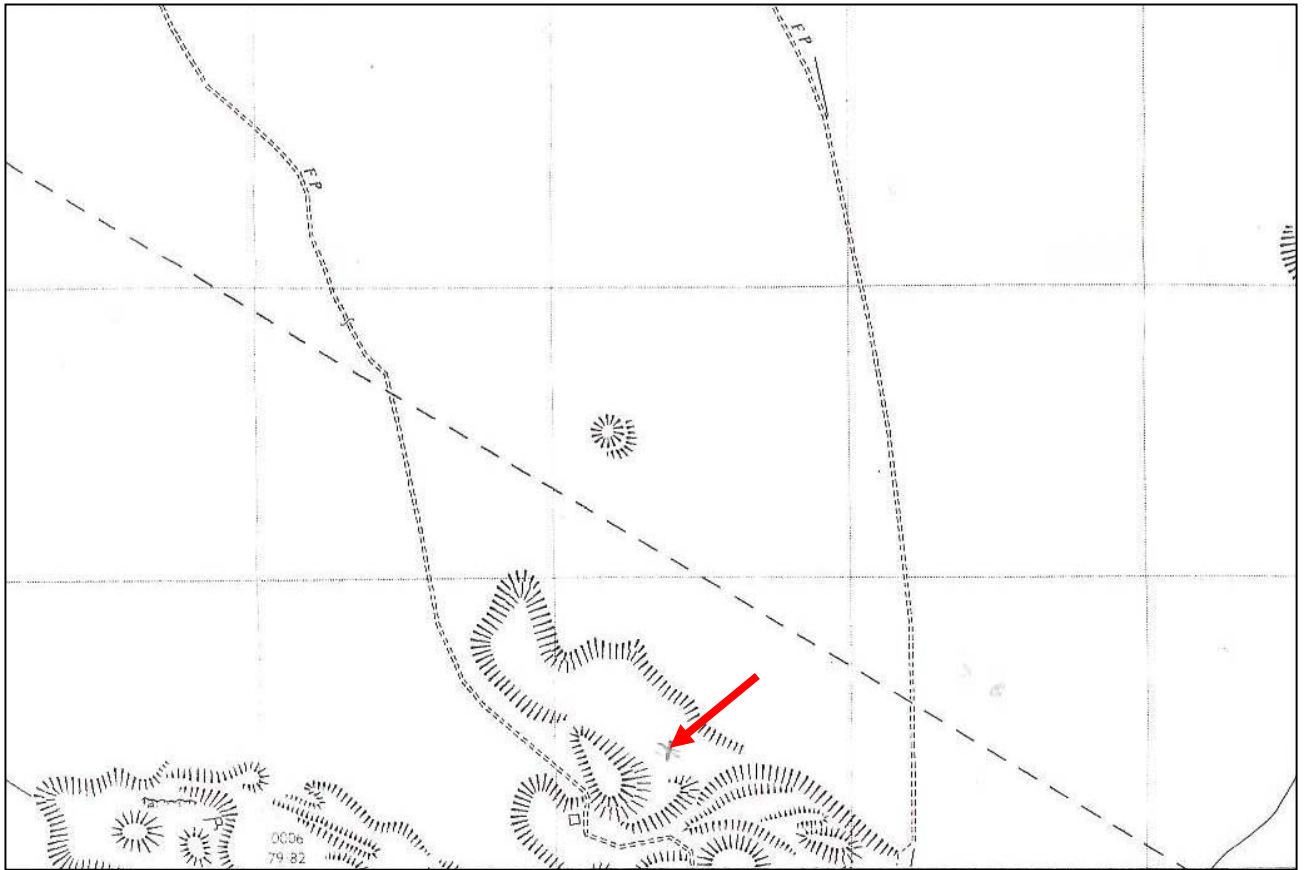
*An Archaeological Recording and Monitoring Programme at
Hut 34, Thurns Head Quarry, Whitworth, Lancashire*



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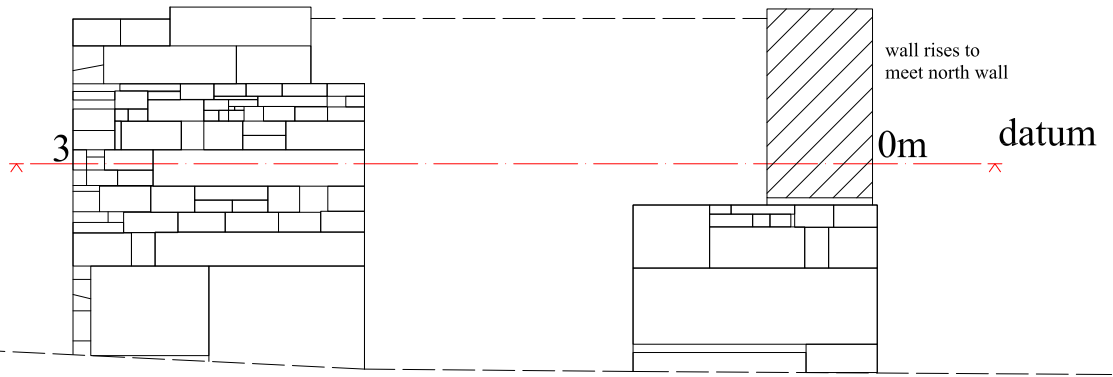
FIG.1: LOCATION PLAN

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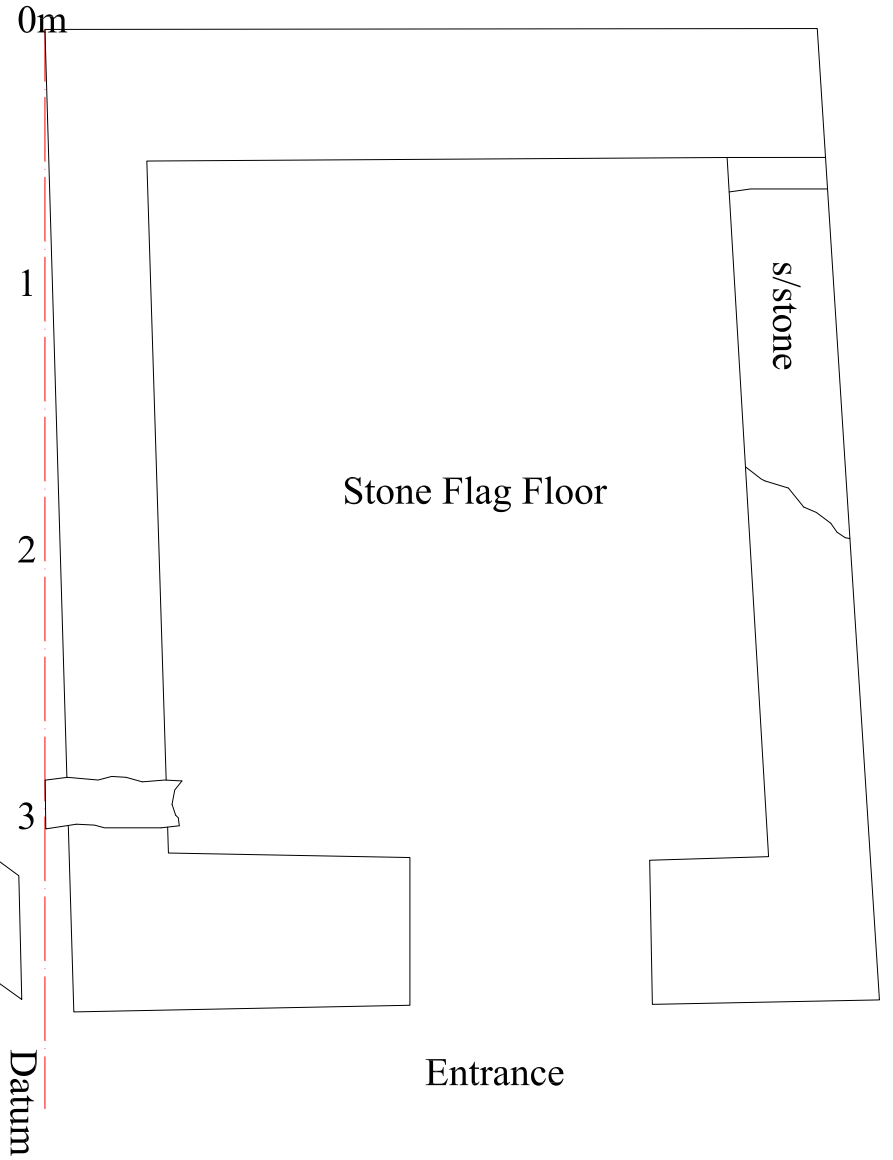
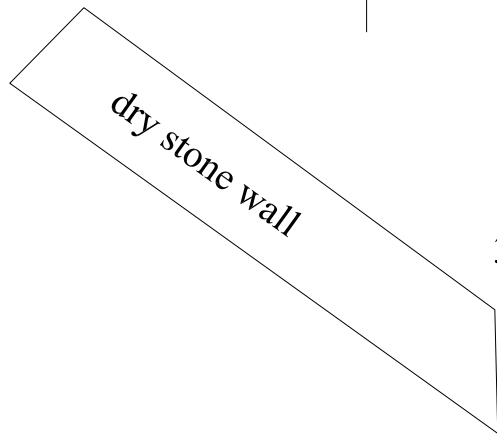
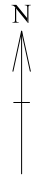


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FIG. 2: SITE PLAN



SOUTH ELEVATION



Rosendale Quarry, Thurns Head,
Whitworth: Quarrymen's Huts

FIGURE 3:
ARCHAEOLOGICAL SURVEY
HUT 34: PLAN AND SECTION

Stephen John Baldwin
Land Use & Heritage Consultancy

Site Code:
Survey date: 14th May 2008
Drawn by: Steven Price
Scale: 1:20 (at A3)

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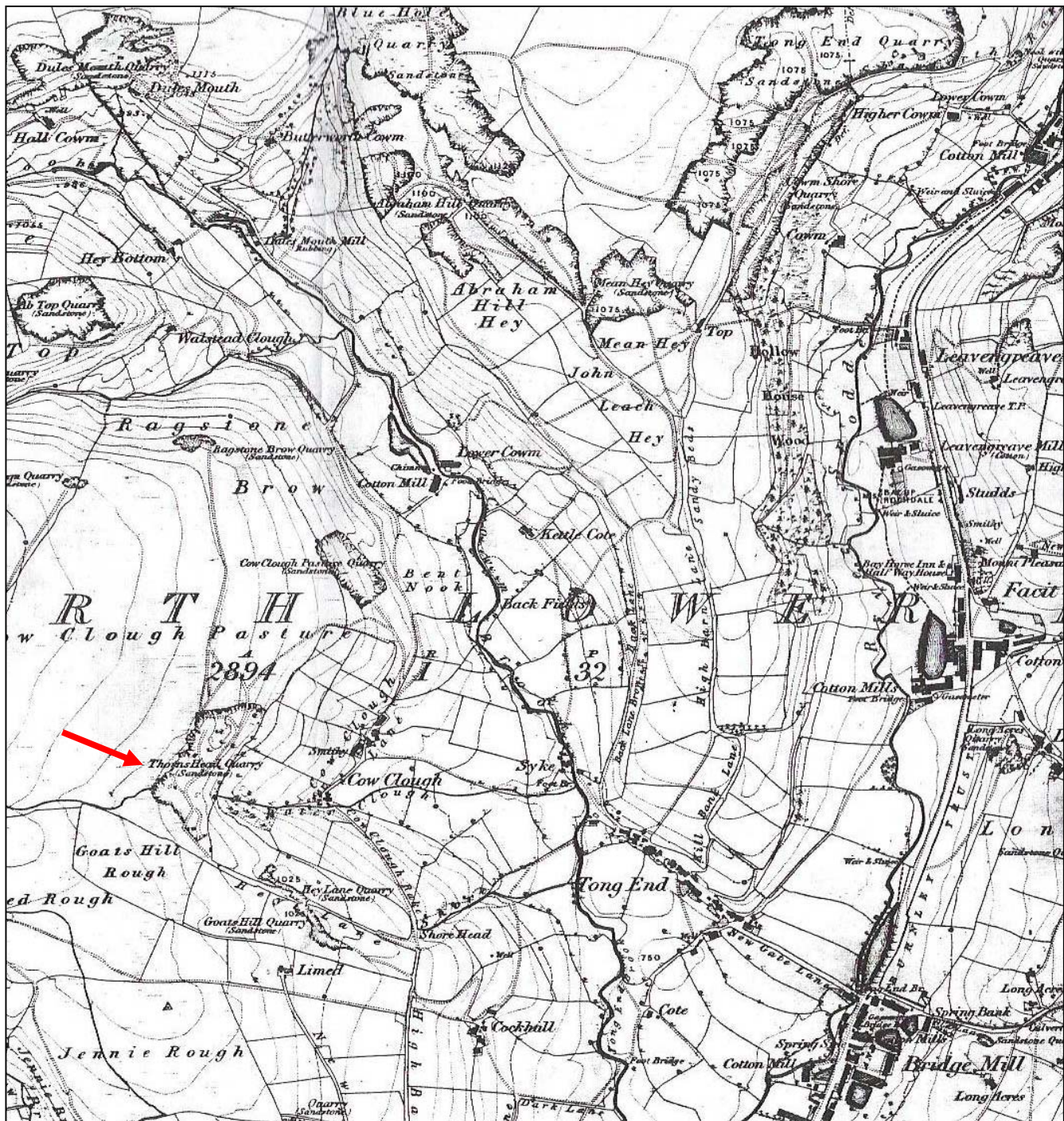


Fig. 4: O.S. 6" Scale Map 1851

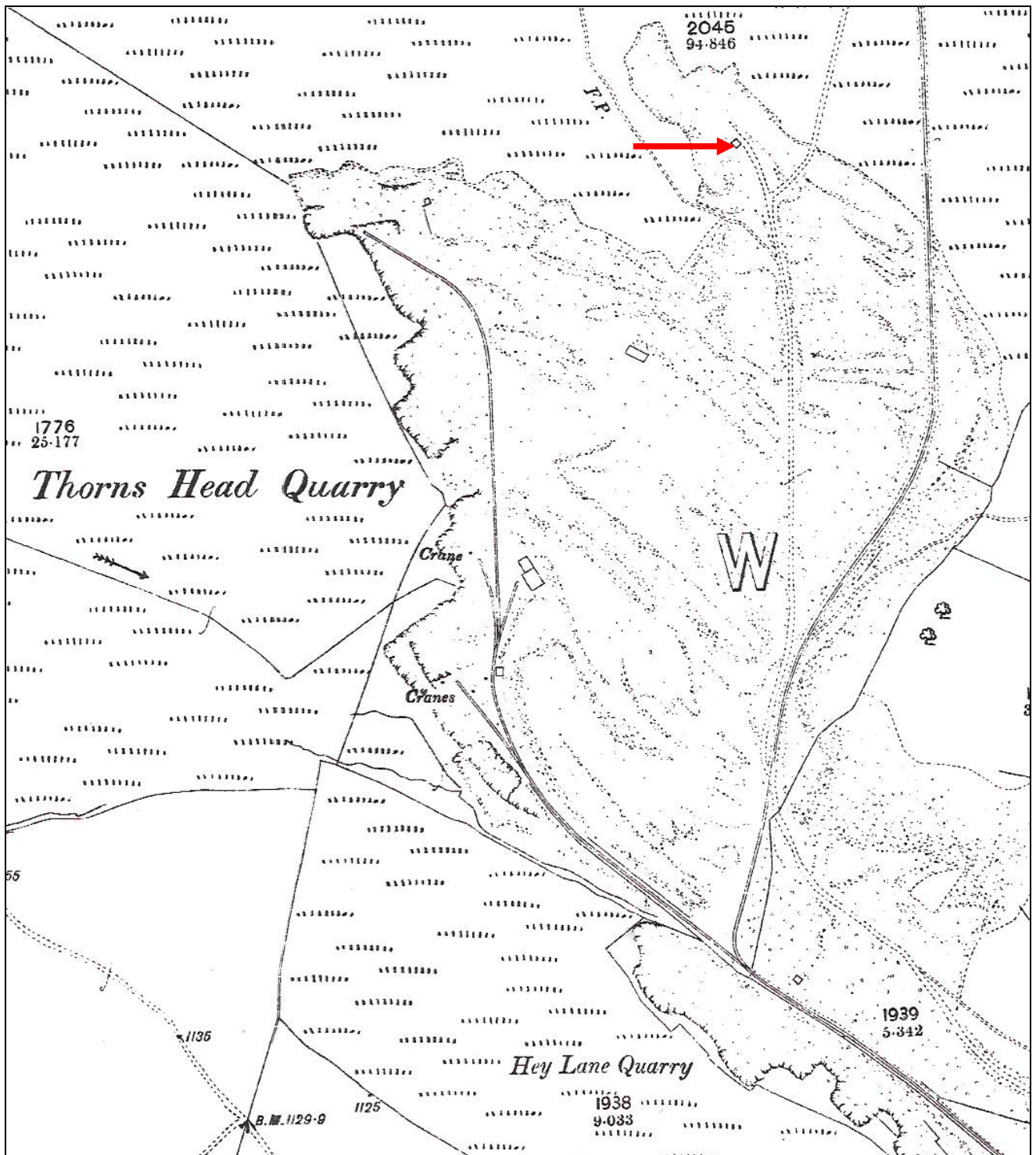


Fig.5: O.S. 25" Map 1895

APPENDIX 3: PLATES

Plate 1: Hut 34 from North West

Plate 2: East Elevation of Hut 3 and Spoil Heap

Plate 3: Close up of East Elevation

Plate 4: East Elevation and North Elevations

Plate 5: Hut 34 from North

Plate 6: Hut 34 from East after Clearance

Plate 7: Hut 34 from South East after Clearance

Plate 8: Looking into Hut 34 from North after Clearance

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Plate 1: Hut 34 from North West



Plate 2: East Elevation of Hut 3 and Spoil Heap



Plate 3: Close up of East Elevation



Plate 4: East Elevation and North Elevations

*An Archaeological Recording and Monitoring Programme at
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Plate 5: Hut 34 from North



Plate 6: Hut 34 from East after Clearance



Plate 7: Hut 34 from South East after Clearance



Plate 8: Looking into Hut 34 from North after Clearance