



Thorns through Time



The story of an abandoned settlement



Stories in Stone: Project H3

Thorns through Time

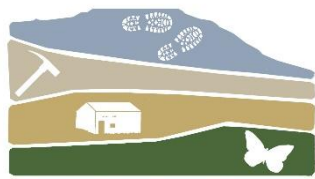
The story of an abandoned settlement

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Thorns viewed from the west. Back Hools Barn is seen centre right, Low Flat Barn centre left; the tops of the copse of trees to its left marks the settlement of Thorns (David Johnson)

Contents

	Page
Figures	iii
Tables	viii
Acknowledgements	ix
Abbreviations	x
Photographic scales	x
Summary	xi
1. Introduction	1
2. Physical background	4
3. Aims and Objectives	15
4. Methodology	18
5. Historical Context – the Historic Environment Record	23
6. Historical Context – Thorns in its wider setting	28
7. Historical Trackways through the Thorns Landscape <i>Sheila Gordon</i>	37
8. Historical Ditches and Banks in the Thorns landscape	50
9. Field Walls in the Thorns Landscape <i>Pat Carroll and Phil Carroll</i>	70
10. The Vernacular Buildings of Thorns <i>Alison Armstrong</i>	98
11. Geophysical surveying <i>Stephen Eastmead</i>	172
12. Excavation	181
13. The Thorns Fieldscape	212
14. Peopling Thorns	231
15. Drawing it all together: surveying, archaeology and documentary research	246
16. Outputs and Outcome	268
17. Appendices	279
1. Botanical Survey of Former Hay Meadows <i>Chloë Lumsdon</i>	279
2. Supplementary Botanical Survey <i>Margaret Barker and Sally Edwards</i>	287
3. Estimation of Ages of Walls <i>Mike Slater</i>	289
18. References and Bibliography	294

Figures

	Page	
1.1	Location of Thorns	1
1.2	Google Earth aerial image of the core settlement at Thorns	3
2.1	Looking north to Ribblehead House	4
2.2	A limestone pedestal near Thorns Gill	5
2.3	Drift geology at Thorns	6
2.4	Drumlins identified from LiDAR data	7
2.5	Cave systems at Thorns	8
2.6	Cove Hole	9
2.7	Palaeochannel edge west of Thorns settlement	9
2.8	Thorns Gill photographed between 1900 and 1910	10
2.9	Thorns Gill photographed from the same position in 2017	11
2.10	Meadow land on the floodplain	12
2.11	Looking north-west across Low Flat to the floodplain	12
2.12	Looking east to Broad Reyn Hill with Cam Fell in the background	13
2.13	Looking north across Thorns Close	13
2.14	Blanket bog in Thorns Close	14
3.1	Volunteer diggers hard at work	15
4.1	A volunteer displaying advanced recording skills	18
4.2	Volunteers using the wall profile measuring frame	22
5.1	OS First Edition six-inch map of Thorns	23
5.2	Sites listed on the YDNPA HER as at 1 February 2016	25
6.1	Ordnance Survey First Edition 6-inch map centred on Thorns	28
6.2	Pollen diagram for Wife Park	29
6.3	Farms in Upper Ribblesdale, past and present	35
7.1	Historical trackways through Thorns	37
7.2	Trackway no. 1 at its east end	38
7.3	Trackway no. 2 opens out into Pry	39
7.4	Trackway no. 2 at the ford across the Ribble	40
7.5	Trackway no. 3 leading away from the bank barn	40
7.6	The stepping stones by Hipping House	42
7.7	The stepping stones looking towards the west bank	42
7.8	Trackway no. 4 crossing a small stream	43
7.9	Trackway no. 5 showing as a line of rushes	44
7.10	Trackway no. 5 at the ford across Gayle Beck	44
7.11	Trackway no. 6 within the settlement	45
7.12	Trackway no. 8 showing as a sunken rush-filled Holloway	46
7.13	Trackway no. 8 at the Thorns-Cam End boundary wall	46
7.14	Trackway no. 9 by the now ruined lime kiln	47
7.15	Thorns Gill Bridge in 1939	49
8.1	Feature 12, ditch, bank and adjacent wall	50
8.2	Pre-survey sketch map of ditch and bank features	51
8.3	Feature no. 1a with the bank clearly shown	53
8.4	Feature no. 1d with dense rush growth	54
8.5	Feature no. 5 approaching Gayle Beck	55
8.6	Feature no. 10 with a ruinous wall on the bank top	55

8.7	Feature no. 13 with the bank in the foreground	57
8.8	Feature no. 15 topped by a later dry-stone wall	57
8.9	Feature no. 15 with the ditch clearly seen	58
8.10	Feature no. 28 showing the prominent bank	60
8.11	Feature no. 29 showing twin banks	60
8.12	Feature no. 29 with volunteers marking the enclosure banks	61
8.13	Feature no. 29 showing the bank either side of the bog	61
8.14	Feature no. 30 with the bank seen close to the later wall	62
8.15	Ditches and banks as sketched at the end of the field survey	63
8.16	Internal and external boundary features plotted on an OS map extract	66
8.17	Internal and external boundary features plotted on a Bing aerial screen shot	67
9.1	Wall no. 28 at Thorns	70
9.2	Wall no. 14, footings only with no standing wall	71
9.3	Wall no. 12, a totally ruined wall	71
9.4	Wall no. 15, sheep creep	72
9.5	Wall no. 3, cattle creep	72
9.6	Wall no. 1, rabbit smoot	73
9.7	Wall no. 34, weathered limestone gate stoop	73
9.8	Wall no. 22, 'slate' gate stoop	74
9.9	Wall no. 10, incorporating an earthfast boulder	74
9.10	Wall no. 11, displaying characteristics of older walls	75
9.11	Wall chronology, western section	77
9.12	Wall chronology, eastern section	78
9.13	Gates and stiles, western section	79
9.14	Gates and stiles, eastern section	80
9.15	Creeps and smoots, western section	81
9.16	Creeps and smoots, eastern section	82
9.17	Wall junctions, western section	83
9.18	Wall junctions, eastern section	84
9.19	Cross-profiles for Wall nos. 1 – 22c	87
9.20	Cross-profiles for Wall nos. 23a – 39	87
9.21	An extract from the First Edition Ordnance Survey map c. 1853	88
9.22	Wall – what wall? The case of a disappearing wall	89
9.23	One wall turning through a right-angled corner or two walls meeting at a field corner	90
9.24	Lush grass beyond the wall and a riotous growth of nettles	91
9.25	Nettles totally masking a collapsed creep	91
9.26	Wall no. 15 runs off into the distance	92
9.27	The effects of weathering and plant growth on two sides of wall no. 29	93
9.28	A volunteer using specialised equipment	94
10.1	Thorns 9, cart arch barn	98
10.2	Buildings in the Thorns landscape	101
10.3	Thorns 1, plan	103
10.4	Thorns 1, south frontage	104
10.5	Thorns 1, detail on south frontage	105
10.6	Thorns 1, rear elevation and dairy	106
10.7	Thorns 1, west gable and dairy	106
10.8	Thorns 1, rear outshut dairy	107
10.9	Thorns 1, front elevation in 2003	108
10.10	Thorns 2, plan	109
10.11	Thorns 2, front wall	110
10.12	Thorns 3, plan	111

10.13	Thorns 4, plan	114
10.14	Thorns 5, plan	117
10.15	Thorns 5, 'reconstructed' south gable	118
10.16	Thorns 6, plan	120
10.17	Thorns 6, east (front) elevation	121
10.18	Thorns 6, north gable	121
10.19	Thorns 6, roof truss	122
10.20	Thorns 7, plan	124
10.21	Thorns 7, detail of wall and plinth	125
10.22	Thorns 7, detail of double plinth	125
10.23	Thorns 8, plan	127
10.24	Thorns 8, north elevation	129
10.25	Thorns 8, south elevation	129
10.26	Thorns 8, west gable	130
10.27	Thorns 8, east gable	131
10.28	Thorns 8, interior and roof truss	131
10.29	Thorns 8, water trough	133
10.30	Thorns eight-sided star	133
10.31	Thorns 8, arrow-like carving	134
10.32	Thorns 9, plan	135
10.33	Thorns 9, front (south) elevation	136
10.34	Thorns 9, rear (north) elevation	136
10.35	Thorns 9, east and west gables	136
10.36	Thorns 9, interior and roof truss	137
10.37	Thorns 10, plan	139
10.38	Thorns 10, north elevation	140
10.39	Thorns 10, south elevation	141
10.40	Thorns 10, interior view	141
10.41	Thorns 10, 'RH 1837' in west shippon	142
10.42	Thorns 10, 'The new Stable'	142
10.43	Thorns 10, north elevation and outshut in 2004	143
10.44	Thorns 10, inscribed marks (ML and FL) on boskin timbers	143
10.45	Thorns 11a, plan and elevations	146
10.46	Thorns 11b, plan, elevations and moulding	147
10.47	Thorns 11b, moulding	148
10.48	Thorns 12, north-east corner	149
10.49	Thorns 12, north-west corner with foundation slab or padstone	149
10.50	Thorns 4, corner block	151
10.51	Thorns 2, house, sandstone slab	152
11.52	Thorns 3, surviving remains	156
10.53	Thorns 1 in 2017	157
10.54	Thorns 2, ruins by Trackway no. 1	158
10.55	Thorns 11a, wash-house, in 2016	159
10.56	Thorns 11b, privy, in 2016	159
10.57	Thorns 6, Low Flat Barn, in 2016	161
10.58	Thorns 4, remains of Holme Barn in 2016	162
10.59	Thorns 9 in 2016	163
10.60	Thorns 7, High Flat Barn, in 2016	163
10.61	Thorns 10, bank barn, in 2016	164
10.62	Thorns 8, Back Hools Barn, in 2016	165
11.1	Bartington gradiometer operated by SWAAG volunteer	172
11.2	Base map with survey grids in red	173

11.3	Google Earth image with survey grids in yellow	173
11.4	LiDAR image with survey grids in red	174
11.5	Magnetic gradiometry: greyscale image	175
11.6	Greyscale image showing very high and very low results	176
11.7	Greyscale image with banded contours	176
11.8	Greyscale image showing ferrous bipolar signals	176
11.9	Wall-top wiring adjacent to survey site 2	177
11.10	Localities with potential archaeological significance	177
11.11	GNSS survey data	178
11.12	GNSS data including geophysics survey grids	178
11.13	GNSS data with superimposed OS grid	179
11.14	GNSS data with survey grids and superimposed OS grid	179
11.15	GNSS data superimposed over LiDAR image	180
12.1	'A Band of Sisters': volunteers taking time out while excavating Trench 11	181
12.2	Trench 1, rubble spread	183
12.3	Trench 1, cobbled floor on east side of trench	184
12.4	Trench 1, west wall	185
12.5	Trench 1, cobbled floor on west side of trench	185
12.6	Trench 1, final contexts	186
12.7	Trench 2, west wall	186
12.8	Trench 2, cobbles and bedrock	187
12.9	Trench 2, final contexts	187
12.10	Trench 3 on completion of excavation	188
12.11	Enhanced spring, or well, well in Test pit 5	189
12.12	Trench 6, cobbled floor	190
12.13	Trench 6, fireplace and fireplace surrounds	191
12.14	Trench 6, final contexts	191
12.15	Trench 7, porch and walls	192
12.16	Trench 7, final contexts	193
12.17	Trench 8, hearth and fire basket	194
12.18	Trench 9, doorway	194
12.19	Trench 10, slate floor and walls	195
12.20	Trench 10, final contexts	196
12.21	Trench 11, the glutinous mess in the ditch	197
12.22	Trench 11, looking east through the ditch	197
12.23	Long-profile through Ditch and Bank feature 1d	198
12.24	One forlorn-looking spade	198
12.25	High Flat Barn showing the location of Trench 12	198
12.26	Trench 13, showing the south-west corner of the building	199
12.27	Trench 13, with the west gable and south walls, the threshold and the floor slabs	200
12.28	Trench 13, final plan	201
12.29	A modern hand-forged nail	202
12.30	Diagram of a hames in position	203
12.31	Items of pony and cart furniture from Trench 10	204
12.32	Sf 183, part of a horse-drawn plough swingle	204
12.33	Large redware sherd from a pancheon or baking bowl	205
12.34	Part of a white earthenware cup, from 1882 onwards	207
12.35	Part of a large black-glazed redware storage vessel	207
12.36	Part of a white salt-glazed vessel from c. 1720	207
12.37	A finely-made lead-glazed flagon, a forenoon bottle, from 1780-1820	208
12.38	Another view of the forenoon bottle	208
12.39	Part of a large stoneware vessel, from 1830 onwards	208

12.40	Part of a white earthenware tankard, from 1875-1900	209
13.1	Back Hools and Thorns Cow Close: high quality pastures purchased by Furness Abbey	212
13.2	Tentative reconstruction of monastic fields at Thorns	216
13.3	Ruined lime kiln at the southern end of Lister's allotment	223
13.4	Current field code numbers superimposed on historical field boundaries	228
13.5	Gillheads Meadow	230
14.1	Ownership of land at Thorns and Gearstones in 1846	231
15.1	Thorns 1 in the mid nineteenth century	246
15.2	Thorns 1, final plan compiled after building works	247
15.3	The fire window lintel reused in the front face of the house	248
15.4	The outer face of the reused fire window lintel	248
15.5	The restored stub from the second-phase dividing wall	249
15.6	The straight joint indicating the doorway from bodystead to parlour	249
15.7	The seat or shelf in the porch	250
15.8	An impression of Thorns 1 in its sixteenth-century phase	250
15.9	An impression of Thorns 1 in its final phase of occupation	251
15.10	Final scale plan of Thorns 2	252
15.11	Thorns 3 photographed in early spring 1995	253
15.12	Thorns 3 photographed in summer 2014	253
15.13	Final scale plan of Thorns 3	254
15.14	The early-phase fireplace with the bread oven	254
15.15	An impression of Thorns 3 in its final phase of occupation	256
15.16	The 'vague' earthwork of Thorns 13	257
15.17	Part of an eighteenth-century window jamb	257
15.18	The south wall of the house showing as a parchmark in summer 2018	258
15.19	First Edition OS six-inch map extract for Thorns settlement, 1847-48	263
15.20	Second Edition OS six-inch map extract for Thorns settlement, 1893	264
15.21	Scale plan of Redmayne's core tenement	265
15.22	Scale plan of Battersby's core tenement	266
16.1	Dales YAC members excavating one of the demolished houses	268
16.2	Thorns Gill footbridge undergoing structural repairs in 2018	270
16.3	Back Hools Barn cleaned out and conserved for the future	271
16.4	The privy on completion of consolidation works	273
16.5	The house frontage in 2003	274
16.6	The house frontage after consolidation in 2017	274
16.7	The lime kiln after stabilisation works	276
16.8	Chris Rushton, helped by Alfie and Reg, rebuilding Wall no. 3	276
16.9	Wall rebuilt by voluntary labour	276
17.1	Wall no. 19	291
17.2	Wall no. 19: section v profile	292

Tables

	Page	
5.1	HER entries for Thorns as at 1 February 2016	26
6.1	Place-names in the Ribblehead area	30
6.2	Valuations of Furness properties in Lonsdale Fells, 1535	33
6.3	Farrer purchases in Upper Ribblesdale	34
6.4	Farms in Upper Ribblesdale, past and present	36
7.1	Vertical slabs at the hippings	41
8.1	Basic variables for ditch and bank features	52
9.1	Walls dating analysis sheet	85
12.1	Metal objects logged	202
12.2	Ceramic objects logged	206
12.3	Pot sherds from Phase 2 excavations	209
12.4	Glass items logged	210
13.1	Probable former hay meadows and current pH values	218
13.2	Valuation of Furness Abbey properties in 1535	219
13.3	Upper Ribblesdale monastic tenements 1536-39	220
13.4	Monastic tenants at Thorns 1536-39	220
13.5	Agricultural improvements at Thorns 1833	224
13.6	Lime burning accounts for work at Thorns	225
13.7	Building works at Thorns, 1836-60	225
13.8	Current fields at Thorns: summary data	229
14.1	Customary tenants at Thorns, 1811-86	238
14.2	Horton, Higher Division. Selected Land Tax data	239
14.3	Occupiers of land, according to Land Tax data, 1783-1831	240
14.4	Thorns: baptisms, 1606-1846	243
14.5	Thorns: marriages, 1600-1800	243
14.6	Thorns: burials, 1600-1846	244
14.7	Thorns: probate documents, 1546-1813	246
15.1	Comparative dimensions, Thorns 1 and Thorns 3	253
15.2	Comparative internal dimensions of Thorns barns	259
15.3	Comparative external dimensions of houses at Thorns	260
15.4	Number of undertenants at Thorns, 1536-1891	261

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Margaret and John Owen are thanked for their donation of the 1900-10 photograph of Thorns Gill.

ABBREVIATIONS

CRoW	Countryside and Rights of Way Act 2000
GPS	Global Positioning System
HER	Historic Environment Record
IDLP	Ingleborough Dales Landscape Partnership
LiDAR	Light Detection and Ranging
NYCRO	North Yorkshire County Record Office
OS	Ordnance Survey
Sf(n)	Small finds (number)
TFB	Traditional Farm Building – a census undertaken by the YDNPA, centred on 2011
WRRD	West Riding Registry of Deeds, Wakefield
WYAS	West Yorkshire Archive Service
YVBSG	Yorkshire Vernacular Buildings Study Group
YDMT	Yorkshire Dales Millennium Trust
YDNPA	Yorkshire Dales National Park Authority

PHOTOGRAPHIC SCALES

The small red and white scale bar used in photographs is 200mm long; each red or white section of the long ranging poles is 500mm long.

SUMMARY

A comprehensive programme of archaeological investigations was undertaken over a period of eighteen months (April 2016 – September 2017) on the small uninhabited farming settlement at Thorns (SD781 794) near Ribbleshead in the Craven District of North Yorkshire. The settlement is first known from documentary sources in 1189-90, was a possession of Furness Abbey during the monastic era, and was abandoned as a settlement between 1881 and 1891. Surrounding the settlement is a whole estate with field evidence of an extensive medieval fieldscape associated with a major ditch and bank network, a series of trackways radiating out from the settlement core, a series of domestic and agricultural buildings across the estate, in various stages of decay, and a network of dry-stone walls forming a multi-period fieldscape later than that of the ditch and bank system. Detailed fieldwork has produced for the first time ever surveys of each of these elements of the landscape, in addition to comprehensive archival research, botanical surveying of the earlier parts of the fieldscape, and geophysical surveying within the core settlement. At the end of the surveying phase targeted excavation was concentrated on several of the either ruinous or earthwork remains of several key features: four (domestic) houses, an isolated field barn, a major boundary ditch and bank, and one of the trackways. Furthermore, the project funded the stabilisation and consolidation of the remains of the last house to be inhabited and the communal privy.

A very large cohort of volunteers was actively engaged in the various strands, many of them new to practical archaeology, encompassing a wide age range, and all who took part were able to gain experience of new techniques and skills.

It can be justifiably claimed that the Thorns through Time project has enabled a truly comprehensive picture to be built up, one that arguably has no parallel within the Yorkshire Dales National Park.

Note As a long-lasting legacy of *Stories in Stone*, the IDLP scheme commissioned and funded a new, revised edition of the book *Ingleborough. Landscape and History*, the first edition of which was commissioned and funded by the YDMT in 2008.

INTRODUCTION



Fig. 1.1 Location of Thorns

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Additional information © YDNPA)

Contents

1. Context
2. Site ownership
3. Designations
4. Site elements
5. Preliminary surveys
6. Project archive

1. Context

Thorns, a small uninhabited hamlet 2km east of Ribblehead viaduct (Fig. 1.1), occupied an important location on a north-south packhorse route. It is about 700m south of the former Gearstones Inn which during the eighteenth and early nineteenth centuries relied heavily on the business of passing drovers and held weekly produce markets and regular cattle fairs. The settlement of Thorns lies 400m east of the Grade II-listed Thorns Gill packhorse bridge. Thorns is first recorded from 1189-90 as a property belonging to the Cistercian Furness Abbey and six tenants were recorded in the early sixteenth century when the Abbey was dissolved. The domestic buildings at Thorns have been unoccupied since the later

nineteenth century – the 1891 census recorded ‘one uninhabited dwelling’, ending several decades of steady but inexorable decline.

The settlement itself is sited in a shallow open basin on well-drained limestone grassland but the outer parts of the site are grounded on the Ribblesdale drumlin field with glacial deposits supporting acidic and poorly-drained soils.

Altitude ranges across Thorns from 265m OD at the confluence of the Ribble and Wife Park Spring through 290m at the settlement to 303m on High Flat Hill and 337m on top of Broad Reyn Hill.

2. Site ownership

The entire project area is on private land; the various owners gave their consent for the project to be carried out. The nature of the work means that it will be of no economic benefit to them. Only one enclosure – Thorns Close to the north-east of the settlement – is on CRoW Access land, though three public rights of way, all footpaths, converge on the settlement. **Readers are asked to respect the landowner’s legal rights and stick to public rights of way.**

3. Designations

The site does not benefit from any statutory designation but is covered by an Entry Level plus Higher Level Stewardship Scheme agreement. Derogation from Natural England was secured for work on site.

4. Site elements

Today the obvious features of the wider site are:

- a. A patchwork of dry-stone-walled fields
- b. A network of historical trackways radiating out from the settlement
- c. A large stone-roofed combination barn, a bank barn, and the remains of five outlying field barns (Fig. 1.2)
- d. A wash-house and a privy
- e. Remains of three domestic buildings at Thorns itself, seen as partly-standing structures or rubble spreads
- f. A series of earthwork platforms across the area representing the sites of earlier buildings
- g. Two ruined lime kilns and associated quarries
- h. An extensive network of ditch and bank boundary features

5. Preliminary surveys

As part of the development of the IDLP *Stories in Stone* H3 project, *Thorns through Time*, detailed examination of the five standing structures within the core settlement was

conducted by James Innerdale, Architectural and Historic Buildings Consultant, and reports, photographic record and floor plans were compiled for each (Innerdale 2014a, b and c).

Also, as part of the development of the IDLP *Stories in Stone* H1 project, *Traditional Farm Buildings*, a detailed report on Back Hools Barn was undertaken by Gaby Rose, then YDNPA Building Conservation Officer and now Senior Listed Buildings Officer for the same organisation (Rose 2014).

Copies of all four reports are filed in the H3 *Thorns through Time* Project Archive.



Fig. 1.2 Google Earth aerial image of the core settlement at Thorns
(© YDNPA)

Thorns is a very picturesque and atmospheric site but the structures are not in a stable condition with buildings in various stages of decay, their position on the decay cycle depending on when they became redundant, ie when they were last productively used, and on their relevance to modern farming techniques.

6. Project Archive

The full H3 *Thorns through Time* project archive has been deposited with the Dales Countryside Museum in Hawes where it can be accessed by appointment with the Museum Manager.

PHYSICAL BACKGROUND



Fig. 2.1 Looking north to Ribblehead House in the distance, with the lime kiln centre right and Whernside as the backdrop (David Johnson)

Contents

1. Geology
2. Drumlins
3. Solution hollows
4. Cave systems
5. Meltwater channels
6. Soils and vegetation

1. Geology

In terms of solid geology (surface bedrock) the entire project area is grounded on Carboniferous Great Scar Limestone (GSL) with localised occurrences of Hardraw Scar Limestone along the southern edge of Blea Moor and extending in a narrow band south-

eastwards to Deer Bank and Ling Gill. Above-surface outcrops of GSL within the project area are confined to the area between the packhorse bridge, the lime kiln and the settlement of Thorns (Fig. 2.1). Bedrock is exposed most along Thorns Gill between the eastern boundary wall of Thorns Close/Cam End and where the 5-6m-deep gorge opens out into the riverside meadow called Holme.

There are also individual outcrops of pedestal-like limestone broadly parallel to the gorge extending from just below the bridge to the settlement (Fig. 2.2).



Fig. 2.2 A limestone pedestal near Thorns Gill (David Johnson)

There is some doubt about the origin of these pedestals, though the two most tenable theories put forward both involve natural geomorphological processes. One suggests that they are glacial erratics, or more pedantically glacially-moved boulders,¹ carried along under ice flows and deposited at random as the ice lost momentum and therefore the energy to transport heavy material. Some of the isolated pedestals could indeed be erratics as their angle of repose is not horizontal so they are not part of the bedrock. The alternative suggestion is that they are tor-like features, a term normally applied to masses of granite rock common on the moors of south-west England, exposed by normal weathering processes. In such cases the pedestal would have rocks lying horizontally, as clearly seen in Figure 2.2. It is, however, not acceptable to see the lower layer of any given pedestal representing the amount of rock weathered away since de-glaciation.

Much of the land surface here, as across much of the Ribbleshead area, is masked by layers of superficial glacial or post-glacial deposits, in general terms referred to as 'drift' (Fig. 2.3). Within the project area this drift takes three very different forms. Firstly, on higher land to the east of the settlement, in Thorns Close and on Cam End, peat forms a layer of variable thickness sometimes seen as wet blanket bog, notably along the upper reaches of Cove Sike and on Cam End. Secondly, on the lower slopes in a band stretching from High Flat Hill to Nether Lodge, are deposits of till (boulder clay) laid down by passing glaciers to leave a

¹ Technically, because it is limestone on limestone it is not an erratic.

landscape of hummocky hillocks, composed of rounded or sub-rounded cobbles and boulders, dominantly of sandstone or gritstone, set in a pale-coloured clay matrix. Between this band and the Ribble is a more or less level strip of alluvium laid down since glacial retreat by the Ribble and Gayle Beck: this consists of water-smoothed and rounded rocks from pebble to boulder size as well as finer gravel and silt. The alluvial area extends well away from the course of the Ribble across Nell Holme because there have been major changes in the course taken by the river as it migrated back and forth across its floodplain. LiDAR data highlight an extensive interconnecting series of abandoned meander loops across the whole of Nell Holme.

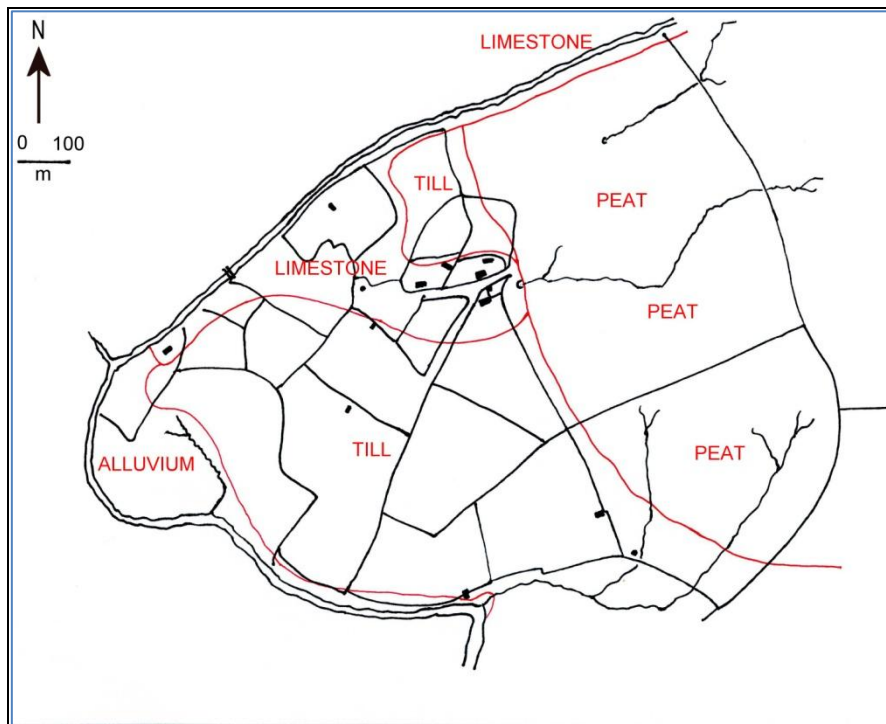


Fig. 2.3 Drift geology at Thorns (Source: British Geological Survey 1971)

2. Drumlins

The area between Gearstones, Ribblehead and Horton in Ribblesdale arguably has one of the finest and most extensive drumlin fields in Britain. Drumlins are elongated hillocks, of variable height, length and width, which have often been described like eggs cut in half longitudinally with the blunt and wider end up-ice and the more streamlined end down-ice. They are entirely made up of till laid down as glaciers ‘flowed’, in this case south-westwards from Newby Head and Cam Fell to diverge at Ribblehead, with some ice flowing along the valley through Chapel-le-Dale and the majority down Ribblesdale (Mitchell 2008; Mitchell and Prescott 2012). As this ice flow diverged, it lost momentum and began to deposit its load. That much is beyond dispute. Why they all have the same basic streamlined shape, and why they vary so much in dimension, are issues not fully understood. Perhaps the variations are due to the details of subglacial meltwater flow or of the dynamics of ice movement and temperatures within and below the ice.

One survey of Ribblehead drumlins has identified thirteen drumlins within the project area, all more or less aligned north-east to south-west but with great variation in size (Waltham

and Lowe 2013, 44), though it is apparent from LiDAR imagery that there are sixteen within the Thorns survey area (Fig. 2.4). The most obvious ones in the landscape are named on current OS mapping – High Flat Hill, Back Hools Hill, Tile Hill, Broad Reyn Hill and Middle Hill.

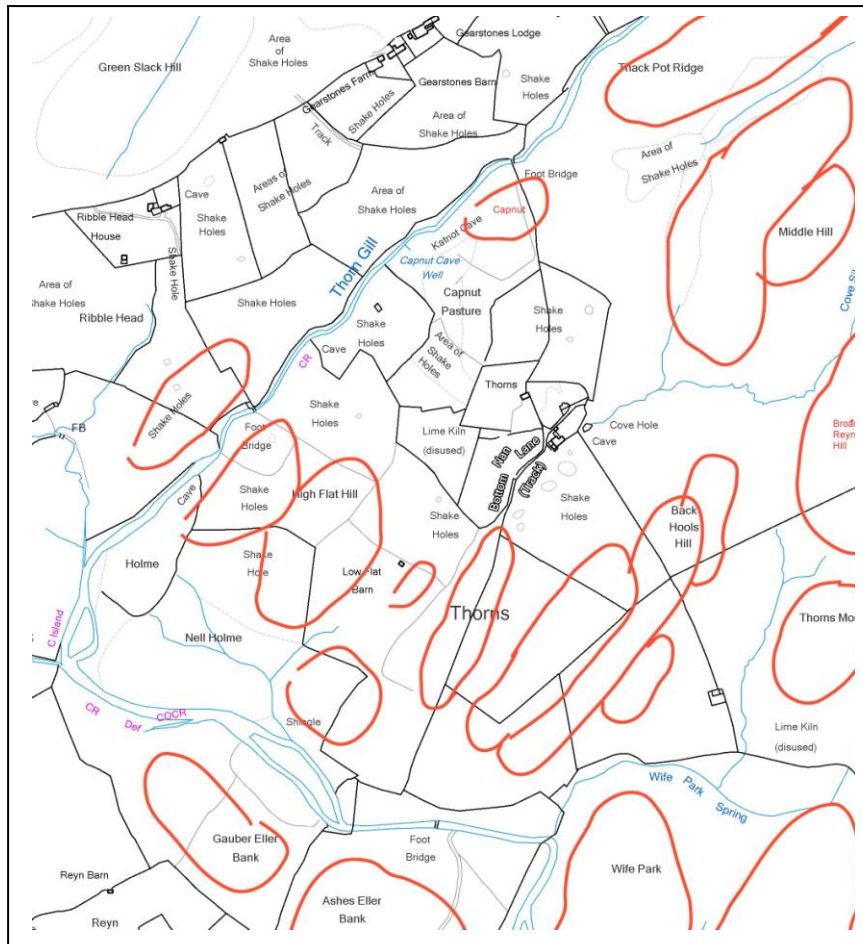


Fig. 2.4 Drumlins identified from LiDAR data

3. Solution hollows

On the areas where limestone bedrock is only covered by relatively thin superficial deposits, and along lines of structural weakness, underground dissolution of the limestone along vertical joints and horizontal bedding planes has occurred through chemical reaction between the calcium carbonate that constitutes limestone and natural rainfall-derived carbonic acid in water seeping underground. There comes a point when sufficient limestone has been dissolved for the overlying glacial deposits to slump into the void below: when this happens a solution hollow called a shakehole is created and, over time, these can grow in size. Four discrete lines of shakeholes can be seen at Thorns: one runs north-west from the cart-arch barn on the western edge of the settlement; one runs south-westwards from the bank barn at Thorns; another follows ditch and bank nos. 3 and 4; while the fourth heads westwards from the lime kiln west of the settlement.

4. Cave systems

Limestone landscapes are often characterised by underground streamflow features such as cave passages, sink holes (where surface streams disappear underground) and resurgences (or risings, where underground streams issue above ground).

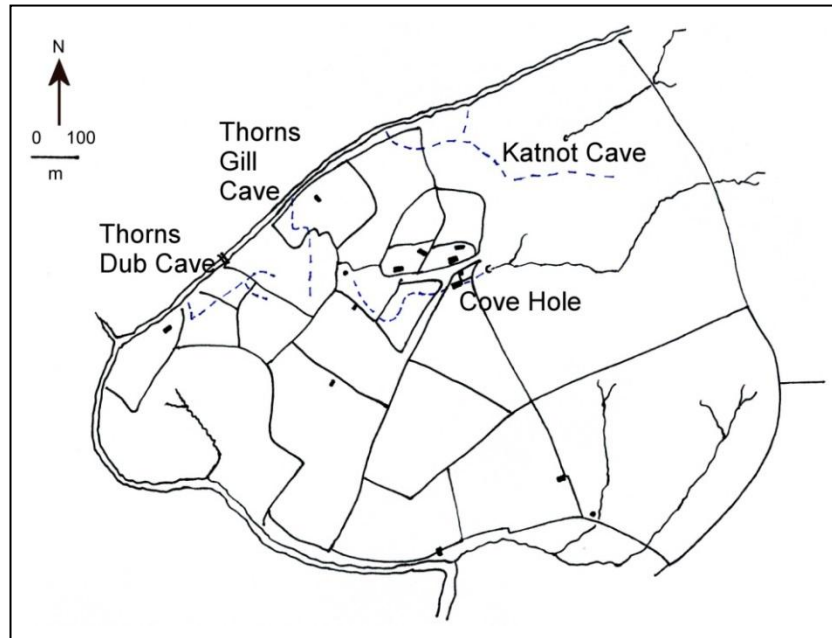


Fig. 2.5 Cave systems at Thorns: approximate courses shown as blue pecked lines (Source: Brook et al. 1991; cavemaps.org)

Four systems underlie the Thorns landscape (Fig. 2.5):

a. Cove Sike flows as a small stream across Thorns Close and sinks immediately east of the settlement of Thorns at Cove Hole, at SD7824 7942 (Fig. 2.6), to flow underground for a surveyed distance of about 400m. It runs directly below the bank barn across the meadow towards the lime kiln and it is possible that the obvious 1m-high bluff seen on the surface within the meadow represents the edge of a palaeochannel from when this stream flowed on the surface (Fig. 2.7). It rises and joins Gayle Beck at the outflow of Thorns Dub Cave.



Fig. 2.6 Cove Hole (David Johnson)



Fig. 2.7 Palaeochannel edge west of Thorns settlement (David Johnson)

b. Capnut or Katnot Cave (at SD7798 7967) is the end point of a stream passage running for 671m beneath the northern part of Thorns Close, visible on the surface at the edge of Thorns Gill. Two topographic guides from over two centuries ago drew their reader's attention to *Catknot-hole* which they described as 'remarkable', initially very low but soon high enough to walk through and passable for 'upwards of a quarter mile' (Hutton 1781, 40; Housman 1800, 229).

A guide to Ribblesdale from 1864 noted that 'Catknot Hole' was by then 'not much noticed by tourists' but had been at the start of that century (Dobson 1864, 13).

c. Thorns Gill Cave (at SD7788 7955) is similarly seen at the surface in Thorns Gill c. 200m downstream from Capnut Cave. The former runs for 233m and descends for 19m, starting as a 1.5m-high cave passage but soon reducing to a crawl.

d. Where the Gill opens out into Holme (at SD7766 7932) is the outflow called Thorns Dub Cave which is 240m long, dropping 10m through its overall length. This is the rising for the Cove Hole and Thorns Gill Cave watercourses.

The British Geological Survey (BGS) holds a major collection of photographs, taken in 1935-36, which form the Eli Simpson Collection, formerly held by the British Cave Research Association (BCRA), with the reference code BCRA/101Y. Photos include interior shots of Capnut Cave (vol. 3, photos. 463-71, pages 13-14) and Thornsgill Cave (vol. 3, photos. 472-78, pages 14-15; volume 4, photo no. 645, page 9). The BGS also holds the H. W. Haywood Collection of cave photographs which includes several of and within Thorns Gill Cave taken at Easter 1931 (BGS.P617519-617523).

5. Meltwater channels



Fig. 2.8 Thorns Gill photographed by Alfred Shaw between 1900 and 1910, with Park Fell and Ingleborough in the background (David Johnson Collection)²

² Alfred Shaw and his father, John, ran a photography business in Blackburn. Between 1900 and 1910 they took a range of scenic photographs all over North West England, marketing many as postcards.

Towards the end of the most recent glacial period, some 10-12,000 years ago, vast quantities of water flowed out from melting glaciers and ice sheets, finding its way wherever a pre-glacial river valley provided it with an easy passage. Meltwater from Great Knoutberry Hill, Gayle Moor, Cam Fell and Blea Moor, all of which had been ice growth centres, poured south-westwards towards Ribbleshead. Meltwater flows had the energy and power to greatly deepen and widen existing river courses so what would have been pre-glacial Gayle Beck's normal open and gentle-sided valley was transformed into the narrow rocky gorge now called Thorns Gill (Figs. 2.8 and 2.9) between Gearstones and Holme.



Fig. 2.9 Thorns Gill, more or less from Shaw's viewpoint, photographed in April 2017 (David Johnson)

6. Soils and natural vegetation

Soil characteristics are almost by definition a direct result of underlying geology and at Thorns there is a very close correlation between geology and soil type, moderated by past management practices.³ In turn, soil type largely determines what plant species will thrive and what plant communities come to dominate different parts of the landscape. Within the project area soils are influenced by drift deposits rather than by solid geology.

Along the floodplain of the Ribble, the lower section of Gayle Beck and where the Ribble formerly ran, the soils are classified as 'Soilscape 17, seasonally wet acid loam and clay soils' (www.landis.org) (Figs. 2.10 and 2.11). These soils have impeded drainage because the land is barely higher than the level of the river bed so there is a constantly high water table, even in dry summer months. Such soils have low fertility but support grasses that are suitable for cattle or sheep and for the production of hay or silage.

³ For discussion of pH values, see Table 13.1.



Fig. 2.10 Meadow land on the floodplain where Gayle Beck turns sharp left (south) to become the Ribble, with the footings of Holme Barn in the foreground (David Johnson)

The 1864 guide mentioned earlier listed a range of ‘interesting’ plants in this part of Thorns – ‘The water avens (*Geum rivale*) was [*sic*] abundant; the frog orchis (*Habenaria viridis*), and the tway-blade (*Listera ovate*) were frequent, and the generally scarce small white orchis (*Habenaria albida*), almost equally so’ (Dobson 1864, 16). He also noted ‘a great quantity’ of dark plume thistle, wood-crane’s bill, great bistort and giant bell flower not to mention abundant bird’s-eye primrose.



Fig. 2.11 Looking north-west across Low Flat to the floodplain beyond the barn (David Johnson)

East of the floodplain is a belt on and between the lower drumlins from High Flat Hill to Back Hools with soils classified as ‘Soilscape 19, slowly permeable wet very acid upland with a peaty surface’ (Figs. 2.12 and 2.13). This rather cumbersome descriptor defines those peat-based or acidic brown earth soils which have a high humic content and drainage which is impeded by the sticky nature of the underlying glacial till. These soils, too, have low fertility ratings and tend to support a mix of grass moorland with occasional flush or bog plant communities. They are deemed capable of agricultural improvement if drained, limed and maintained, and they can support low to moderate stocking densities.



*Fig. 2.12 Looking east to Broad Reyn Hill with Cam Fell beyond
(David Johnson)*



*Fig. 2.13 Looking north across Thorns Close with Back Hools Hill middle left
and Middle Hill east of the copse (David Johnson)*

Down the eastern side of the project area, in Thorns Close and on Cam End, lies 'Soilscape 25, blanket bog peat soils' which are very acidic with a pH value little more than 4 (Fig. 2.14). Consequently, they have very low nutrient levels and minimal populations of organic recyclers, and consist largely of (here at least) relict heather moorland and active bogs, especially along Cove Sike and around Broad Reyn Hill. The water table is always very high, peat is highly resistant to successful agricultural improvement, and such ground is only suitable in farming terms for very extensive low-density grazing.



Fig. 2.14 Blanket bog in Thorns Close (David Johnson)

Thus, Thorns has no soils of high value. According to Natural England's Agricultural Land Classification, which is largely based on soil potential, the alluvial areas of Thorns are classed at Grade 4 'Poor' and all the rest at Grade 5 'Very Poor' (NE 2010). This would confirm that Thorns is a marginal farming proposition.

AIMS AND OBJECTIVES



Fig. 3.1 Volunteer diggers hard at work (Chris Bonsall)

Contents

1. Scope and purpose
2. Surveying
3. Building consolidation
4. Dry-stone wall restoration
5. Excavation

1. Scope and purpose

The project set out to undertake a multi-faceted programme of work on the uninhabited settlement and the wider Thorns setting, including archaeological surveying and excavation, botanical surveying and archival research: in short, as far as was possible, it adopted the holistic approach that characterises historical geography, landscape history and landscape archaeology (Johnson 2016), while incorporating some aspects of ecology as relevant to the site's story. No archaeological survey or investigation of the site had previously been carried out, thus the understanding of Thorn's development and eventual abandonment was limited and even misunderstood.

The site and its structures – both above and below ground – were in need of monitoring and recording to help inform an ongoing management strategy for the site, including the consolidation or restoration of key buildings. This work was carried out with the intention of providing the requisite monitoring, whilst also discovering and interpreting more of the history of the settlement and its environs. This will update and enhance the YDNPA's HER, making the results available to the general public, while informing the public and providing local volunteers with training opportunities and experience.

In tandem with conservation and interpretation of the site, the project was set up to provide training opportunities and potentially a new experience for volunteers so that over time it would enhance transient walker/visitor appreciation and provide an improved learning experience for members of the local community, as well as those from outside the Yorkshire Dales. Training was to be provided across a variety of investigative and recording techniques relevant to the historic environment, and to be made available to all members of the local community. This sort of training provides volunteers with the wherewithal to pursue further archaeological and historical activities elsewhere. The project aimed to produce a variety of learning resources and to engage with members of the public through various media including traditional and social outlets.

2. Surveying

The following surveying techniques were to be incorporated into the project:

- a. Detailed analytical surveys of standing and part-standing buildings to record and understand their development and evolution, to encompass four dwellings, six barns, a wash-house, a privy, the packhorse bridge, and two lime kilns.
- b. Analytical archaeological surveys of the area of the hamlet were to be undertaken using tape and offset measurement and geophysical techniques to record and understand the development and contraction of the settlement itself.
- c. Analytical surveying of all thirty-nine discrete dry-stone walls across wider Thorns with the aim of recording and analysing their development and identifying a broad typology and chronology of wall building as well as highlighting those lengths that would benefit from and justify restoration.
- d. Analytical surveying and recording of historical trackways across Thorns and a network of historical boundary ditches and banks, again in both cases to build up a typology and chronology.
- e. A botanical survey of the area to be carried out on a walkover basis.
- f. Archival investigation of Thorns to locate and access documentary sources such as parish registers, monastic accounts, manorial records, probate inventories and wills, and legal indentures, and in a limited way to adopt the techniques of oral history.
- g. A key aim of the project was to use experienced volunteers as team leaders, where appropriate, each working with untrained and possibly inexperienced volunteers who, without exception, would develop new skills and enhance existing ones. Dedicated teams were to be established to survey historical trackways across Thorns, an extensive

network of historical boundary ditches and banks, dry-stone walls, and vernacular buildings.

- h. Key to the project was an understanding of the potential archaeological significance of the wider Thorns area. Thorns can quite justifiably be considered a unique feature of the North Craven landscape and, as such, it warranted investigation in detail to unpick its structural components and historical development, decline and long-running *modus operandi*. Similarly, it was perceived to be important to use whatever sources were located to fit Thorns into the hierarchy of monastic and settlement sites in the Ingleborough-Upper Ribblesdale area.
- i. Being able to build up such an understanding of the site would provide the potential to extrapolate from the results here to a wider understanding of sites from the monastic/post-medieval periods elsewhere in the Dales and Pennines.

3. Building consolidation

The original aspiration was to ensure that the principal buildings within the settlement would benefit from stabilisation, consolidation or restoration to prevent further decay. Further, the original aim was to undertake an element of skills training within this work.

4. Dry-stone wall restoration

The decayed nature of many of the walls across Thorns arguably adds to the picturesque appearance of the hamlet. Some walls, however, continue to have or could have a stock-management function and, following the survey, it was the (realised) hope that targeted rebuilding of some sections of wall could be commissioned under the *Stories in Stone* H2 Dry Stone Walls project.

5. Excavation

Very little work had been done on medieval or post-medieval settlements in the Ribblesdale area. A small programme of targeted excavation informed by the findings of the archaeological surveys was to be carried out using local volunteers, including members of the Ingleborough Archaeology Group and the Yorkshire Dales Young Archaeologists Club, to try and understand the development of the settlement from a medieval lodge of Furness Abbey to the hamlet which was deserted by the end of the nineteenth century. This element of the project aimed to provide training in archaeological techniques including the identification and excavation of features, drawing, photography and recording, many of which are skills transferable to other projects and life opportunities, as well as experience in team working, working with other generations, observation and organisational skills, project management, public relations and working with the press and other media.

METHODOLOGY



*Fig. 4.1 A volunteer displaying advanced recording skills
(Chris Bonsall)*

Contents

1. Archival searches
2. LiDAR imagery and aerial photographs
3. Geophysical surveying
4. Tape and offset earthwork surveying
5. Field surveying and recording of historical trackways
6. Field surveying and recording of historical ditches and banks
7. Field surveying and recording of dry-stone walls
8. Field surveying and recording of vernacular buildings
9. Excavation

It is obvious that any form of historical material (archives) or present-day documents showing historical data (aerial photographs, maps and LiDAR imagery) are documents that can be read, 'translated' and interpreted to build up a picture of what went on before our time. Less obvious to the newcomer, perhaps, is that features visible in the landscape can also be perceived as documents in their own right. The network of historical trackways, long-disused ditch and bank boundary features, dry-stone walls ruined or stock-proof, and vernacular buildings ruinous or otherwise, should not be seen as static lifeless elements in the landscape. They can all be read as documents in their own right; they all have a story to tell and those combined stories contribute to building up a detailed picture of Thorns past

and present. We come back to the importance of adopting a broadly holistic approach to landscape interpretation (see Chapter 3.1).

1. Archival searches

Though dispersed across several archive centres, there is a wealth of documentary material concerning Thorns that is available to the determined researcher and every attempt has been made to make the archival coverage as comprehensive as possible.

Early sources of interest include returns from the 1297 Lay Subsidy and the 1379 Poll Tax, and collections of Yorkshire Assize Rolls for the thirteenth century, all of which had already been transcribed. As Thorns formed part of Furness Abbey's extensive Lonsdale Estate, all accessible monastic sources have been examined, specifically the Coucher Book, which is essentially a collection of early charters, as well as immediate post-Dissolution land valuations and rentals. After Dissolution in 1537, Furness Abbey's entire estate portfolio passed to the Crown but was granted to a royal favourite in the seventeenth century eventually coming into the possession of the Dukes of Buccleuch: the Buccleuch Living Heritage Trust, housed at Boughton House near Kettering, Northamptonshire, has kindly provided access to relevant manorial papers.

In 1824 Thorns, along with most of the land around the northern and eastern fringes of Ingleborough, together with the manor of Newby, was purchased by the Farrer family which established the Ingleborough Estate based at Clapham. The huge documentary archive for the family and estate is housed in original format at the North Yorkshire County Record Office in Northallerton and the West Yorkshire Archive Service centre in Morley, Leeds. The former holds mainly estate papers, field books, rentals, estate accounts, correspondence files, the 1910 Land Valuation returns, and a collection of many hundred estate maps. The Morley archive centre holds legal documents (indentures of lease and sales) and court rolls for Newby manor.

Parish records – baptisms, marriages and burials – covering the period 1556-1812 have been consulted for both Horton in Ribblesdale and Ingleton parishes: as Thorns sits on the boundary of the two parishes, some local people looked more to one than to the other. Archbishops' Visitation Records (in original form) have also been examined for the full period to confirm the details in the (transcribed) parish records. Similarly, all wills and post-mortem inventories for Thorns have been consulted from 1546-1814; as well as census returns from 1841-1911.

In addition, the hand-written journal of Nathaniel Johnston who travelled through Yorkshire, visiting North Craven in 1669, making notes on matters clerical and incidental, is of interest by adding another contemporary snippet about Thorns.

All sources are fully referenced in subsequent chapters.

2. LiDAR imagery and aerial photographs

LiDAR is a relatively new aerial technique that has revolutionised landscape archaeology as it reveals sub-surface features that cannot be discerned at ground level. It involves laser scanning of the ground surface from the air and measuring the precise time taken for the light beams to return to the instrumentation carried on the aircraft. All such logged data are

precisely georeferenced using GPS, and they are plotted not as a photograph or conventional map but as remote-sensing digital terrain imagery, and the systems used are able to compensate for the (possibly 'inconvenient') angle of the sun. In very simple terms they can also 'see' into wooded areas thereby revealing what could never be seen on the ground.

At Thorns LiDAR imagery has been used to double-check the results of field surveying and to add features that could not be discerned by the field teams. For example, the precise line of Trackway no. 1 connecting Thorns Gill footbridge with the settlement is visible as a narrow holloway whereas on the ground nothing can be seen. The same applies to much of Trackway no. 8. Similarly, the ground plan of Holme Barn is much clearer from the imagery than from ground observation; as are the number, size and 3-D profile of the drumlins across the wider Thorns landscape. In a sense even more transparent is the extent of medieval field systems – arable strips – at Thorns. Without having had recourse to LiDAR imagery these would not have been picked up to the same definitive extent or, indeed, at all. Its significance with reference to medieval fields, historical trackways and ditch and bank boundaries is discussed in Chapters 7, 8 and 13.

Aerial photography is another potentially useful source and two very different sets of photographs were consulted several years before *Stories in Stone* was conceived. The earlier set is generally described on HER descriptions as 'poor quality' aerial photography (SYD 13235) though it was useful in identifying the more obvious ditch and bank features at Thorns. Later digital aerial photography also highlighted the same features and confirms what is made accessible by LiDAR (SYD 1355).

3. Geophysical surveying

The original intention had been to conduct both magnetometry and resistivity surveys of the core area of the settlement; in reality the latter was not possible because the general depth of soil was too small to make it a feasible method. Resistivity is designed to locate buried structures such as walls or building foundations on the one hand or ditches on the other. Where the bedrock is so close to the surface, as at Thorns, it would have proved too problematic differentiating between buried structures and buried rock. Magnetometry is designed to pick up ferrous objects and spots where intense heating or burning has altered magnetic signals. Three areas were subjected to geophysical surveying: the rubble spread that marks the location of an old house (Thorns 3) behind the part-standing house (Thorns 1), the similar rubble spread marking another demolished building (Thorns 2) and the earthwork adjacent to the wash-house (Thorns 11a) which also proved to be a house. Strong magnetic signals were picked up on all three sites – for full details of the geophysical survey see Chapter 11.

4. Tape and offset earthwork surveying

The same three areas surveyed by magnetometry were also surveyed in detail using traditional tape and offset techniques to produce detailed plans of visible earthworks, both natural and man-made. A long, fixed base tape is laid out across each area to be surveyed and at intervals along the base line, appropriate to the scale used, offset measurements from the base line to specific points on the ground are taken and plotted on a base plan. In this way a whole series of points are plotted, they are joined up by a practised eye and, later

on, the process of hand enhancement is employed to add contour and slope detail using hachures and form lines – in short, to bring a soulless pencil-drawn plan alive and to make sense on paper of a mass of sometimes confusing detail on the ground.

One such survey covered the whole area within the walled enclosure that surrounds the standing house, between the lane through the settlement, the cart-arch barn (Thorns 9) and the former building (Thorns 3), drawn at a scale of 1:250. The second survey took in Thorns 2 and its surrounding area; the third plotted the western half of the walled paddock adjacent to the wash-house and the large bank barn (Thorns 10) where obvious earthworks (at SD7820 7940) demanded attention: these were both plotted at a scale of 1:100.

The three completed drawings and interpretation of what they depict can be found in Chapter 15.

5. Surveying of historical trackways

Once the existence and line of each trackway had been identified on the ground, and each trackway accorded a code number, a very simple process of recording was followed, with basic details entered on proforma sheets, namely start and end point grid references, grid references of survey points, critical dimensions, with notes on surface details, the degree of visibility at each survey point, whether each trackway is sinuous (slightly curving) or rectilinear (running in a straight line), and a description of the route taken by each trackway. A photographic record was also compiled. Ten trackways were identified and surveyed.

A detailed report on the trackway survey is provided in Chapter 7.

6. Surveying of historical ditches and banks

A very similar procedure was adopted for these features. Once the existence and line of each ditch and bank had been identified on the ground, and each accorded a code number, the same simple process of recording was used, with basic details entered on proforma sheets, namely start and end point grid references, grid references of survey points, critical width and depth dimensions, with notes on surface details, the degree of visibility of both ditch and bank at each survey point, whether each length is sinuous or rectilinear, and a description of the line taken by each across the landscape. A photographic record was also compiled. Thirty discrete ditch and bank features were identified and surveyed.

A detailed report on the ditch and bank survey can be found in Chapter 8.

Following on from the survey phase, one prominent ditch and bank feature was selected for excavation to determine its original profile, ditch depth and bank height (see Chapter 12).

7. Surveying of historical dry-stone walls

This survey required a rather different approach though, in common with trackways and ditches and banks, every wall length was plotted on a sketch base map and each was given a code number. Thirty-nine different walls were surveyed. Each wall was surveyed in generality with basic details being logged on a proforma recording sheet (see Chapter 9): land use on each side, whether sinuous or rectilinear, whether an older ditch and bank feature lay adjacent or beneath the wall, and in what physical condition each wall now is. Where significant differences in wall detail were identified further points of detail were noted,

such as stone type, whether the wall had been built with more or less vertical sides or battered (ie angled) sides, if stone size was graded with larger ones at the bottom reducing to smaller ones at the top, how the topstones had been laid (flat or raked), and if large vertically-set orthostat slabs or large horizontally-laid and squared recumbent blocks were seen in the wall base. Details of wall furniture were also recorded at each survey point, to include stiles, gate stoups (or stoops)/posts, blocked gateways, cripple and smoot holes, vertical straight joints, and wall builders' marks. A detailed photographic record was also compiled for each wall.

A 'snapshot' of each length of wall was recorded utilising more than just observation and written notes: how many snapshots were taken depended on how often a given wall changed its characteristics. For some, a single snapshot sufficed; for others it was felt necessary by the joint team leaders to take several. This was achieved using a measuring frame (Fig. 4.2) devised by team leaders Pat and Phil Carroll for wall surveys elsewhere in the Dales. It was possible by using the frame to record accurate cross-profiles for each surveyed wall.



Fig. 4.2 Volunteers using the wall profile measuring frame (David Johnson)

For a detailed report on the dry-stone wall survey see Chapter 9.

8. Surveying of vernacular buildings

'Old' buildings are individual structures each with a distinct character and ambience. This is particularly so for vernacular buildings, those put up by local people to meet local needs rather than adopting some anonymous generic template. Thus, each has to be surveyed and decoded – and metaphorically reconstructed – in its own way. Having said this, the point is to bring back to life what the buildings looked like, what they were constructed with, what special (or standardised) features they possessed, and how they had been modified through time.

A detailed report on vernacular buildings in the wider Thorns area is provided in Chapter 10.

9. Excavation

A detailed report on excavations is provided in Chapter 12.

HISTORICAL CONTEXT – THE HISTORIC ENVIRONMENT RECORD

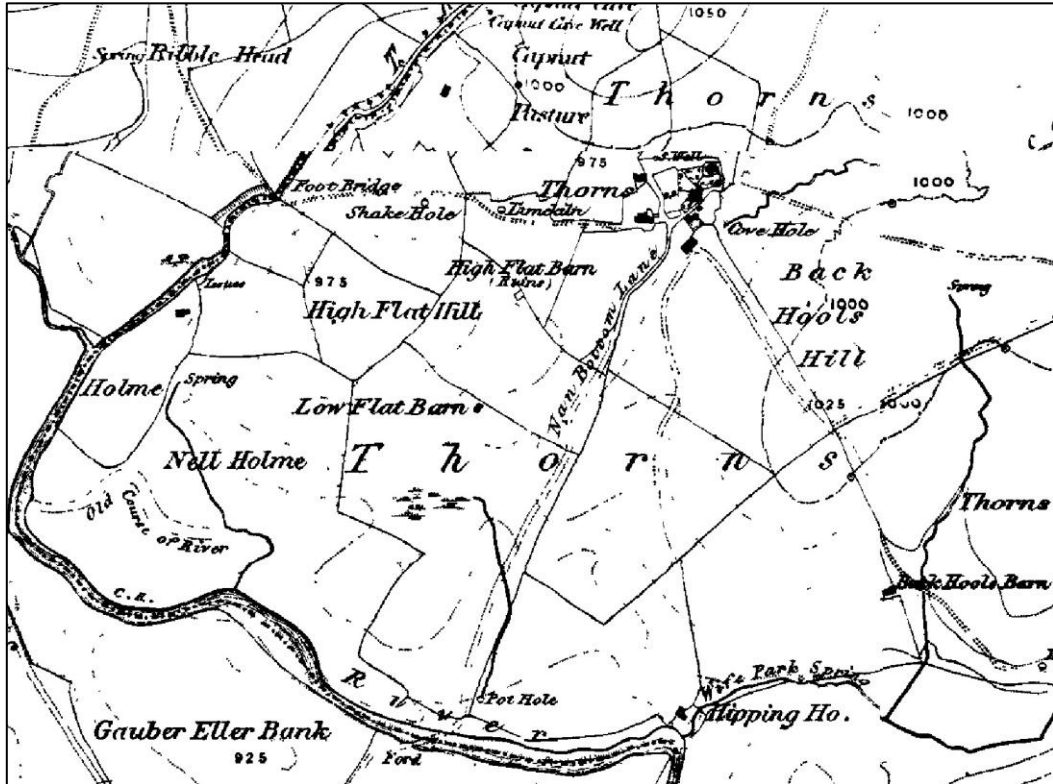


Fig.5.1 OS First Edition six-inch map of Thorns, Sheets 96-97, surveyed 1846-48
(© Crown copyright and database rights 2015. OS number 100023740)

Contents

1. Introduction
2. Pre-existing HER designations
3. Previous research work
4. Potential archaeological significance

1. Introduction

The site of Thorns has multiple entries having been recorded prior to this project in the YDNPA HER variously as a 'multi-yard farmstead centred on a medieval grange' (MYD 60789), a 'post-medieval settlement' (MYD 24566), and 'Thorns Lodge' (MYD 57869), with individual elements of the site having discrete entries and Monument numbers.

The OS First Edition six-inch map (Fig. 5.1), surveyed in 1846-48 and published in 1851, superficially shows Thorns and its settings much as they are today: the road layout, the field walls and topographical place-names have changed little since then, though there have been significant changes with buildings. 'Hipping Ho' has long gone and only the discerning eye would identify its site on the ground now; two field barns near Gayle Beck have also gone, in one case leaving only the faintest of traces of its past existence. At Thorns settlement itself, the map shows more standing buildings (depicted in solid black) than there are now: two have been reduced to linear piles of rubble, three others are now seen only as earthworks.

The wider archaeological context of Thorns is discussed in Chapter 6.

2. Designations

Thorns does not benefit from any statutory environmental designations, but the project required derogation to proceed from Natural England as the farm holding was entered in an Entry Level plus Higher Level Stewardship agreement effective from 1 December 2013 (agreement no. AG00455919). Thorns, however, is included in Natural England's Selected Heritage Inventory for Natural England (SHINE) database as an archaeological feature of interest, a designation which has management and statutory connotations. Several discrete elements of the complex are listed, as in 2013, as being of significance in the SHINE database:

1. YD7743, lime kiln and limestone quarry south of Back Hools Barn.
2. YD 8881 the remains of Holme Barn, classified as of *Medium* significance.
3. YD 8882 'Robbed and ruined lime kiln', accorded *Medium* significance.
4. YD 8884 'Thorns or "Spinetum" ... structures above and below ground' which covers the core of the deserted settlement of Thorns but excludes the two standing barns. This is considered of *High* significance giving it national importance.
5. YD 9318 'Medieval trackway ... visible as a holloway and earthworks', also accorded *Medium* significance. In fact, this is not a holloway but one of the components of the extensive ditch and bank network recognised from recent field walking across the site which is postulated as dividing up intricate medieval/monastic field systems.

No individual elements of Thorns have statutory heritage protection apart from the footbridge over Thorns Gill (NGR SD7775 7942) which was listed Grade II on 23 November 1998 (UID 1132225, listing no. 7433) and described as a 'narrow packhorse-type bridge of possible sixteenth- or seventeenth-century origin'. It is undoubtedly much older.

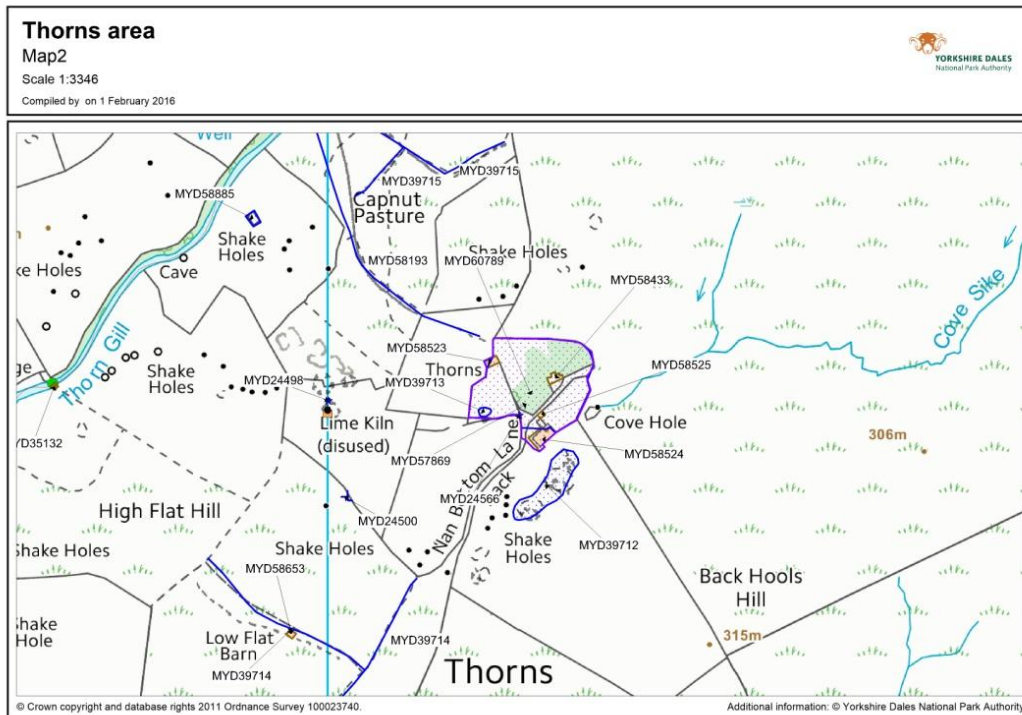


Fig. 5.2 Sites listed on the YDNPA HER as at 1 February 2016 (© YDNPA)

Fig. 5.2 shows all listed monuments within the core area of Thorns and Table 5.1 gives the monument type for each entry including two not within the map area.

The majority of sites listed below are discussed in detail elsewhere in this report but three require a brief comment here as the pre-existing listing description has proved to be misleading in the light of the results of field surveying and recording. All, it should be stressed, were originally notified on the basis of aerial surveying. MYD 39712 was listed on the HER as three small quarry workings showing as scars and covering an area 65 x 60m – this is actually a series of large shakeholes. MYD 39713, listed as either a ruined lime kiln or building, is the remains of a building; MYD 58193, entered on the HER as a trackway connecting Thorns with Gearstones, is a major ditch and bank feature interpreted now as a field boundary. In addition, field surveying has shown MYD 39714 and 39715, both entered as field boundaries, are part of a much more extensive system of historical field and estate boundaries. At the start of the project the footbridge across Thorns Gill was entered as ‘Vulnerable’ on the YDNPA’s Buildings at Risk Register.⁴

⁴ In 2018 a grant under the *Stories in Stone* Heritage Grants scheme (D9) funded minor repairs to the structure of the bridge thereby ensuring its long-term future (see Chapter 16.1 and 16.7).

Table 5.1 HER entries for Thorns as at 1 February 2016

MYD	NGR (SD)	Description	Chapter in this report
24498	7798 7940	Lime kiln	15
24500	78018 79322	High Flat Barn	10
24566	782 794	Thorns – post-medieval settlement	10,12,14
35132	77749 79422	Thorns Gill bridge ⁵	16
39712	7820 7933	Post-medieval quarrying site	n/a
39713	78150 79402	Site of possible kiln or building	12
39714	7798 7912	Post-medieval field boundary	9
39715	7809 7962	Post-medieval field boundary	9
56209	78434 79003	Back Hools Barn	10
57857	7765 7926	Remains of Holme Barn	10
57869	782 794	Thorns Lodge	10,12,14
58193	7802 7963	Trackway from Thorns to Gearstones	7
58433	78206 79424	Ruined house at Thorns	10
58523	78181 79444	Combination barn at Thorns	10
58524	78197 79374	Bank barn at Thorns	10
58525	78201 79413	Wash house at Thorns	10
58653	77966 79195	Low Flat Barn	10
58885	7793 7957	Site of demolished field barn	10
60789	782 794	Thorns – ‘multi-period farmstead’	10,12,14
24541/2	7860 7893	Lime kiln/and associated quarry	7

3. Previous work on Thorns

No detailed archaeological or historical investigations had been carried out at Thorns as far as has been found.

Several published secondary sources made mention of Thorns, though none did so in any great detail. A book focussed on trackways across the Dales described the packhorse bridge across Thorns Gill as ‘one of the most charming’ such bridges in the Yorkshire Dales (Wright 1985, 97); while another source chose the descriptor ‘charming’ for the bridge (Rée 1983, 172): one can surely disagree with neither. Rée saw Thorns simply as an abandoned farm, clearly not recognising its full significance. A short history of Horton in Ribblesdale parish (HHLG 1984, *passim*) gives the briefest of facts, for example that the first recorded use of the place-name Thorns was in 1190.

A more recent landscape history of the Ingleborough area (Johnson 2008, 178) described the site being ‘lost’ and ‘tucked away in a hollow in the hills’ and gave a brief synopsis of its long history.

Early cartographic sources are of variable value. Thomas Jefferys’ engraved map of the Ribblesdale area (Jefferys 1771), surveyed 1767-70 but not by him, is widely held up as a triumph of early cartography but in reality some of the mapping leaves much to be desired. Thorns is depicted on this map, along with Ribblesdale, Ashes and Ingman Lodge (Lodge

⁵ A photograph from 1935/36 shows the bridge with a figure standing on top (BGS. BCRA 101Y, vol. 3, photo no. 479, p. 16).

Hall), but all four are shown quite far west of the Ribble; and the only road coming up from the south was shown bridging Ling Gill Beck upstream from Nether Lodge to join Cam High Road near the foot of Cam Fell. This road is correctly placed but the one shown heading north from (unnamed) Gearstones is wrongly aligned and has Winshaw and Intack far from their correct positions. A survey of 1817 undertaken by Christopher and John Greenwood, but corrected to 1827-28, marked and named Thorns, symbolically perhaps, using three solid black dots to represent the settlement but no roads were shown passing through (Teesdale and Stocking 1828).

The OS First Edition one-inch map (Sheet 12, Richmond, surveyed 1846-55) marked Thorns as a collection of six discrete standing buildings, along with Back Hools, Holme and Gillheads Barns, but not Low Flat Barn, and the four routeways passing through the settlement – from the packhorse bridge, from Gearstones via the ford, south-east from Nether Lodge and south-west from Ashes; it also named Hipping House.

4. Potential archaeological significance

Though deserted post-Conquest settlement sites are common in North Craven, as across the Dales and Pennines more widely, the vast majority were individual farmsteads; at least eighteen such farmsteads between Chapel-le-Dale, Newby Head and Horton in Ribblesdale have either disappeared completely or survive only as barns (see Chapter 6.4). Thorns, however, was at the very least a collection of tenements and can be considered to have been a hamlet with multiple tenancies and, at its known maximum, a population in excess of twenty. The only other known similar post-medieval nucleation in the general Ingleborough area was Skirwith, with three tenements, which was finally demolished as Ingleton Quarry expanded – here only the scant remains of two ancillary buildings have survived. Thorns, on the other hand, has a high rate of structural survival and is capable of being visually reconstructed from what remains either as partly-standing buildings or from excavation of earthworks and from documentary and cartographic sources. In this sense it is valid to view Thorns as being without parallel in this part of the Dales. This alone is considered justification for formulating the *Thorns through Time* project.

HISTORICAL CONTEXT – THORNS IN ITS WIDER SETTING

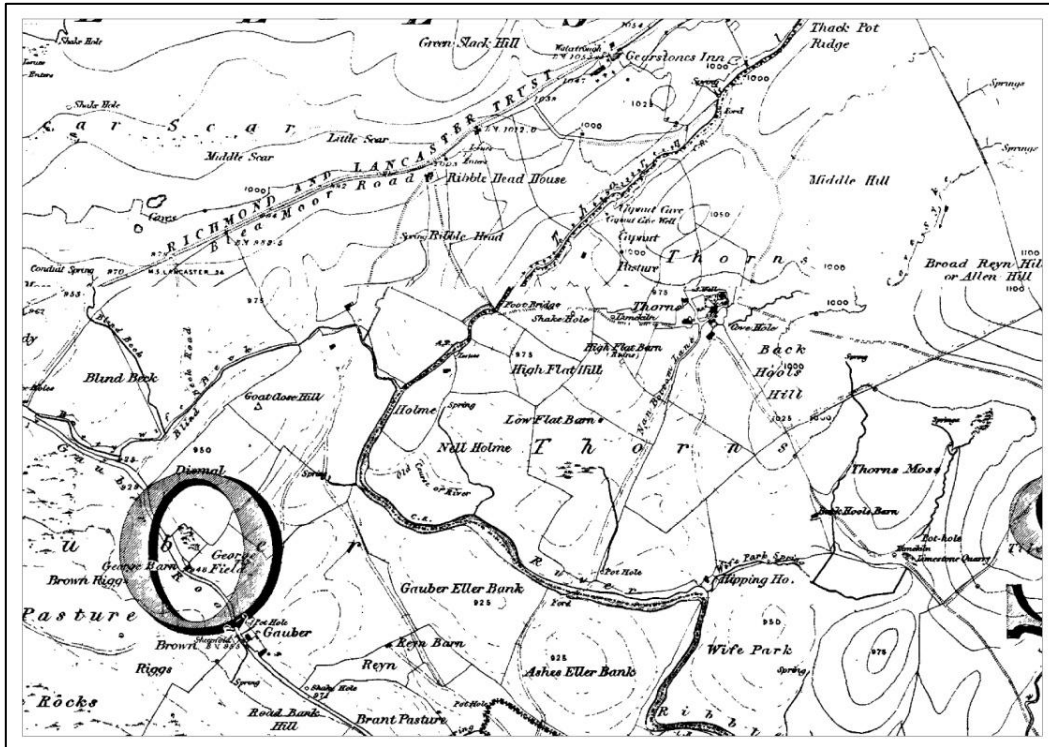


Fig. 6.1 OS First Edition 6-inch map centred on Thorns, surveyed in 1846-48 and published in 1851 (© Crown copyright and database rights 2015. OS number 100023740)

Contents

1. Introduction
2. Place-names
3. Manorial and monastic control
4. Farms - past and present

1. Introduction

Upper Ribblesdale, north of Selside, and the open valley of Gayle Beck extending beyond Gearstones to Newby Head, share much in common in terms of landscape, climate, settlement history and land use past and present.

A comprehensive field survey in the area investigated changes in vegetation through the centuries by pollen coring with five sites chosen to provide a representative sample (Whyte and Shaw 2013). One of the sample cores was taken in the large enclosure called Wife Park

which lies immediately south of Thorns (Fig. 6.1). Deposits from the surface to a depth of 385mm were taken using standard soil coring apparatus and twenty discrete chronological episodes were recognised when the core was examined under the microscope. A small sample from each episode was radiocarbon dated with the lowest episode being from the year 1304 and the highest from 2008, thereby giving a seven-hundred-year view of how vegetation has evolved. The results from this core can be used as a proxy for working out vegetation change across much of Thorns and, indeed, across the whole Ribblehead area.

The pollen diagram (Fig. 6.2) vividly emphasises the dramatic decrease in plant diversity over those seven centuries: for 1304 six plant communities are evident with broadleaved trees, heath species and wild grasses dominant though shrubs, herbs and sedges were also widespread. Up to the late seventeenth century there was a contraction in woodland cover and a concomitant increase in herbs but the same broad pattern persisted. Tree cover continued to decline, at an increasing rate, through the following two centuries and wild grasses increased proportionately over the same period. Perhaps the greatest decline is apparent for heath species, especially heathers (*Calluna* spp.), which had all but disappeared by 1907.

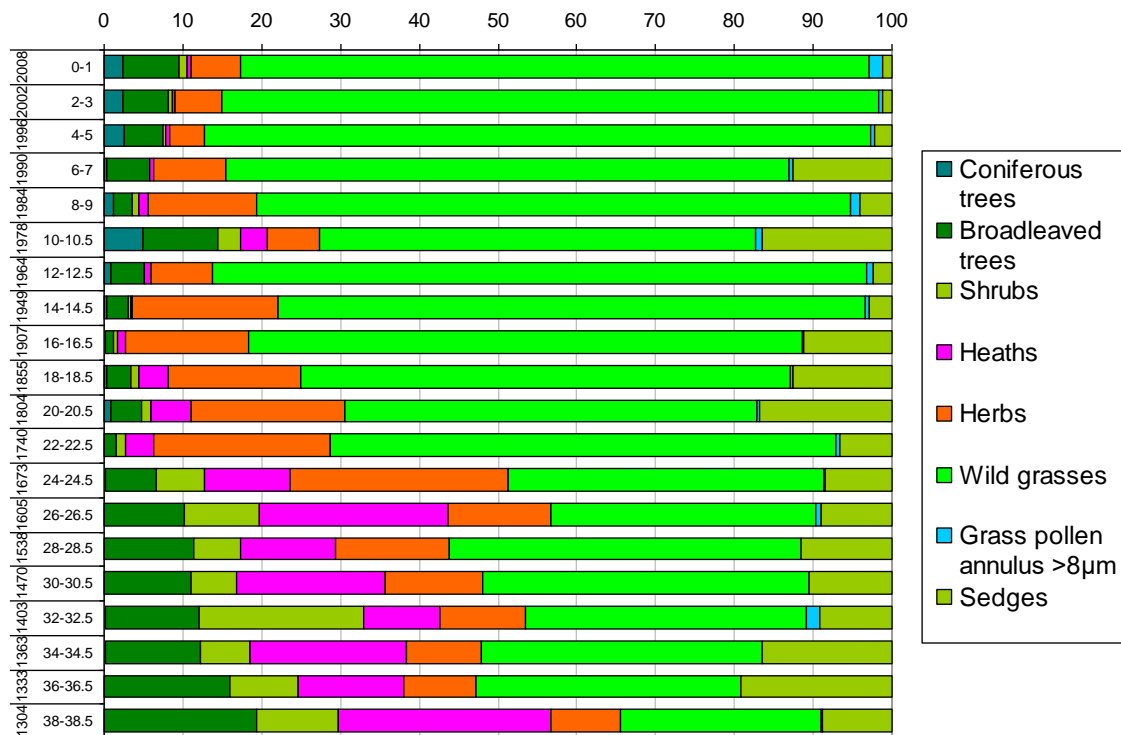


Fig. 6.2 Pollen diagram for Wife Park: dates in column 1 and core depths in column 2 (0-100) are percentage values (Source: Whyte and Shaw 2013, 55)

Pollen data shed light on how land was managed through the centuries, and changes in plant communities reflect changing land ownership and economic systems. In the monastic era – 1304 to 1538 in Figure 6.2 – wild grasses and herbs were dominant which is what would be expected when outlying monastic estates focussed on extensive sheep rearing and wool production. By the seventeenth century, however, cattle had to a degree displaced sheep and this is reflected in the pollen record by decreases in shrub, heath and herb coverage and a spread of open grassland. The post-Dissolution break up of vast monastic

estates (see Section 4 below) in the mid to late sixteenth century led directly to the development of what was much later to become recognised as such an iconic part of the Yorkshire Dales landscape, namely hay meadows and field barns away from the farmsteads. This point will be picked up again in Chapter 13.

A marked growth in population in the late sixteenth and through the seventeenth centuries saw almost an explosion in the dividing up of open communally-worked pastures, with dry-stone walls and the establishment of new farm holdings carved out of newly-enclosed land or created by sub-dividing large existing land holdings. This process is visible around Ribblesdale and as far down the valleys as Horton in Ribblesdale and Twisleton. Many of these new farms were never better than marginal and many were to wither away and disappear or be amalgamated with larger and more productive farms through the later eighteenth and nineteenth centuries. These episodic changes cannot immediately be deduced from the pollen record but the overwhelming dominance of grasses after 1740 is clear evidence of much more intensive use of land associated with the improvement of pastures by draining and liming. This, too, is apparent in the Thorns landscape as will be seen in the next chapter.

2. Place-names

Place-names have often been used to make claims for which ethnic and linguistic groups occupied this area or that, and it has been stated that between Settle and Sedbergh 60 per cent of all place-names have a Scandinavian (Viking) origin (Morris 1981, 69-73). This may be valid for topographical names – hills, peaks, moors and valleys – but it is not true for settlement sites. In the Upper Ribblesdale-Gearstones area, six out of eighteen settlement or prominent landscape names have an Old English (Anglo-Saxon) origin, six are Old Norse (Scandinavian) and six could be either (Table 6.1).

Table 6.1 Place-names in the Ribblesdale area

Modern name	Source name	Origin	Meaning
Ashes	<i>Āesc</i>	OE	ash trees
Blea Moor	<i>blēo mōr</i>	OE	blue moor
Cam	<i>camb</i> or <i>kambr</i>	OE or ON	ridge
Capnut	<i>cupel</i> (?)	ME	horse
Colt (Park)	<i>Colt</i>	OE	young horse
Gauber	<i>galga</i> (?) and <i>beorg</i> or <i>berg</i>	OE + OE or ON	gallows hill
Gayle Beck	<i>geil</i> and <i>bekkr</i>	ON + ON	stream in a ravine/gorge
Gearstones	<i>gār</i> and <i>stān</i>	OE + ON or OE	triangular plot of land
Holme	<i>Holmr</i>	ON	water meadow, or raised land beside a river
Intack	<i>Intak</i>	ON	land taken in & enclosed
Ling Gill	<i>lyng</i> and <i>gil</i>	ON	steep valley with heather
Pry	<i>prien</i> (?)	OE	spy
Reyn	<i>rān</i> or <i>rein</i>	OE or ON	boundary strip
Ribble	<i>ripel</i> or <i>rīp</i>	OE	tear or cut in the landscape, or boundary
Selside Shaw	<i>selja</i> and <i>sætr</i> + <i>skógr</i>	ON	shieling with a willow wood
Sike	<i>sīc</i> or <i>sīk</i>	OE or ON	ditch or small stream
Thorns	<i>Þorni</i>	ON	thorn bushes
Winshaw	<i>wind</i> or <i>vindr</i> + <i>skógr</i>	OE or ON + ON	windy wood

OE = Old English; ON = Old Norse; ME = Middle English

It is of interest to note that fifteen of these names relate to descriptions of the landscape and two to livestock kept: our early medieval ancestors were firmly rooted in the ground. It is of interest to note that the OE letter *þ* (th) was pronounced in full as 'thorn' in the same way that the modern letter D is pronounced 'di' and Q 'kju': this is true rooting in the ground.

3. Manorial and monastic control

Before the Norman yoke changed the political and social situation across England, manors and estates were held by those of Anglo-Saxon or Anglo-Scandinavian origin. Much of Lunesdale and Craven – over twenty manors in total – was held by one person who may have been a royal *thane*, a low-ranking nobleman (Spence 2016). He is recorded as Torfin (or Thorfinr) of Austwick. Among his manors in Craven, apart from Austwick, Clapham and Newby, were Horton and Selside: it is of relevance to note that all five of these manors later came into the possession of Furness Abbey. It is most likely that the manor of Selside in Torfin's time can be equated with what was later known as Horton Higher Division, everything north of the hamlet of Selside as far as Cam and including Thorns.

It is important to note that until the death of King David in 1152 Craven, and lands to the north, were effectively controlled by the Scottish crown. It is also probable that the increasingly powerful Cistercian monasteries – specifically, for Upper Ribblesdale, Furness, Fountains and Jervaulx – took full advantage of political instability and ineffective control on the ground to further their own objectives of expanding their estates thereby increasing their economic output and wealth (Spence 2016). It is significant that many land grants or sales in Craven to the abbeys were made by supporters of the Scottish crown. Prominent among these was Richard de Moreville, Constable of Scotland, who held the manor of Newby beyond 1200.

In 1189-90, or possibly as early as 1173 (Alcock Beck 1844, 16), Richard and his wife Avice assigned the whole of their estate of Selside and Birkwith (most probably what later became Low Birkwith) to Furness Abbey in return for payment of 300 marks (£200) (Brownbill 1916, 334-35). Birkwith included all the land that had been seized from Torfin in Horton Higher Division stretching up the east side of the Ribble beyond Thorns to Cam and beyond Gale; their Selside estate lay west of the Ribble. Furness had already been assigned two other large estates in the area, namely the *vaccaries* (cattle estates) of Southerscales and Querneside/Winterscales which encompassed much of the valley of Chapel-le-Dale.

Two other names enter the scene. Between 1202 and 1208 a Final Concord was agreed between William de Mowbray, a very powerful noble who held vast estates across Yorkshire, and his under-tenant Adam de Staveley, who held manors across Westmorland, Sedbergh, Garsdale, Dentdale and North Craven. The outcome of this agreement was that Adam and his heirs were confirmed with rights of pasture in Mewith, Bentham and Ingleton as well as rights to establish *loggias* (lodges) and *vaccarias* (vaccaries). The Concord specified that 'three vaccaries, namely Querneside and Suterscales and Birbladewith, shall remain to the said Adam and his heirs with wood and meadows and pastures ... And the said Adam shall build no other vaccary nor lodge except in those three places, not enclose any meadow except the meadow which was enclosed before this concord ...' (Clay 1911, 7-8). An alternative description from the Furness Abbey Coucher Book, from a charter of the reign of Henry IV (1399-1413), confirmed the earlier grant of rights of free warren across what had been William de Mowbray's lands in '... Selset, Souterschales, Wynterschales, Birkewithe ...'

(Atkinson 1886, 206; Brownbill 1915, 81); and in a further charter from 1292 it was noted 'Item habent unam vaccariam quae vocatur Selseth ...' ('Next, we have one vaccary that is called Selseth', Atkinson 1886, 635). Free warren enshrined the exclusive right to hunt certain game species, mainly hare and fox but also wild cats and squirrels.

Adam de Staveley died in 1225 and his daughter and heir, Alice, kept her maiden name even though she married Randolph FitzHenry of Ravensworth Castle north of Richmond (Stacey 1998, 7). Alice was widowed by 1243 but in her lifetime she assigned her lands in the valley of Chapel-le-Dale to Furness Abbey. Adam and Alice have relevance for Horton if not Thorns: he had granted an estate – Bigcroft (now Beecroft) to St Clement's Priory in York – and she confirmed the grant sometime after 1237 around the time when her husband Ranulf FitzHenry was in dispute with Jervaulx Abbey over their respective lands in Horton (Farrer 1914, 281).

The Medieval Latin term *loggia* presents problems as it can be translated to mean very different things: at one end of the spectrum a lodge, which suggests something rather grand, and at the opposite end merely a hut or outhouse (Trice Martin 1910, 273; Gooder 1978, 145). The Latin term *vaccaria* (vaccary) has frequently been mistranslated as just a cattle farm or cattle sheds whereas it should be seen as a large and complex estate with multiple lodges and other sub-grades of farmstead, to use a much later term. Upper Ribblesdale has Nether Lodge and Lodge Hall (earlier called Ingman Lodge). The fact that both over time grew into substantial farms with imposing houses would suggest they were at the upper end of the *loggia* spectrum assigned by Furness Abbey. Colt Park was Furness Abbey's stud farm for their North Craven estates, breeding horses, so it would have had a different status from the lodges.

What the Final Concord makes clear is that even before 1200 Upper Ribblesdale and the valley of Chapel-le-Dale were systematically organised in a complex arrangement of farming estates controlled by different overlords and managed from a hierarchy of production centres – granges, lodges, stud farms (note also Studfold south of Horton in Ribblesdale), and those of lesser status. When the abbeys took control they were emphatically not taking on an empty undeveloped landscape but one that was already highly organised and productive.

Meanwhile, in 1256, Sir John de Cansfeld released his claim to 500 acres (c. 200ha) and two messuages in Selside to Furness Abbey (Brownbill 1916, 339-40): how this related to de Moreville's property there is not known.

Taxation returns for 1292 noted that Furness held two vaccaries – *Wynterschale et Sowterschale* – and *unam vaccariam que vocatur Selseth*, the latter valued at £3 annually (Alcock Beck 1844, 232)

In 1338 a dispute (by no means the first one) flared up between Furness and Jervaulx Abbeys over highly-prized grazing rights, with almost identical disputes between Furness and St Clement's, York, in 1330-33 and 1356 (Brownbill 1916, 343-54). Both adjudications confirmed Furness as landowner but allowed Jervaulx to retain access to grazing on 40 acres (16ha) between Cam and Birkwith along with continuance of their *loggia* and 10 acres (4ha) of enclosed pasture land towards Cold Keld at Cam. In addition, Jervaulx retained rights of *chiminage* (right of passage in return for payment of tolls) across Furness Abbey's lands between Birkwith and Cam. What this emphasises is the high regard with which the

pastures in Upper Ribblesdale east of the river, including Thorns, were held. Much of it today may appear bleak and of minimal value but back then it was viewed very differently.

From 1189-90 (or possibly 1173 – the records are ambiguous) up to the surrender to the Crown of the Abbey on 9 April 1537 (Brownbill 1919, 585) Upper Ribblesdale, on both sides of the river, was in the hands of Furness Abbey. For the first century and a half Furness properties were managed by members of the monastic community with lay brothers in day to day charge of paid labourers and servants who worked the land and managed the flocks. The litany of woes in the fourteenth century – Scottish raids, political instability, failed harvests, livestock disease, human epidemics and the infamous Great Plague – conspired to deal all northern abbeys blows that had long-lasting repercussions on the way they operated their distant estates. After c. 1348 Cistercian houses stopped using lay brothers and paid workers (Brownbill 1915, xii) and many granges (and no doubt lodges) were leased out to rent-paying tenants, most of whom hitherto had presumably been paid to manage those same properties (Donkin 1960). It is well known that this process caused many families on an abbey's home ground to be dispossessed as they were no longer needed – or, more realistically, afforded – but on far-flung properties this would not have happened. Whoever had previously worked Furness lands in Upper Ribblesdale stayed on as tenants, paying rent for the land but also being paid to shepherd monastic flocks. The Cistercian ideal of managing vast estates under their 'absolute control' had ended (Donkin 1960).

The Latin term *grange* (*grangiam*) is used interchangeably for an estate distant from its mother abbey as well as for the actual cluster of buildings from which each estate was managed on a day to day basis. Thus, Newby near Clapham was the overall grange for all Furness lands around Ingleborough, so that was the cluster, the corporate centre, but the alternative meaning of the term could – and has – led to some confusion as production centres that were not granges have been referred to as such. Granges, however, were sited far apart.

In 1534-35, before Dissolution, a full valuation of Furness Abbey's estates was undertaken and the total value for the entire Lonsdale Estate, which included all their properties around Ingleborough, was £310 11s 5d. Of that, £76 9s ½d was accounted for by *Lonysdall Fells* which contained twelve discrete properties (Table 6.2). The Abbey's total annual rental income from all properties was estimated at £646 19s 10d (Alcock Beck 1844, 331-39).

Table 6.2 Valuation of Furness properties in Lonsdale Fells, 1535

Name in 1535	Modern name	Valuation £
Selsyde	Selside	13 3s 4d
Sowthe howse	South House	8 2s 8d
Sowtherskaylles	Southerscales	13 6s 8d
Brunterskarre	Bruntskar	3 6s 8d
Wynterskalles	Winterscales	8
Raneskalles	(Raisegale)	2 0s 8d
Cham Howses	Cam Houses	3 3s 4d
Lyngyll et byrkwith	Ling Gill & Birkwith	6 19s
Neytherloge	Nether Lodge	18s 8d
Thorne	Thorns	2 10s 4½d
Derstonys et Colte parke	Gearstones & Colt Park	5 9s 2d
Yngman loge	Lodge Hall	6 8s 6d

Sources: West 1805, 139-40; Alcock Beck 1844, 331-39

Thus, Thorns ranked second from the bottom in value with only the now demolished *Raneskalles* (Raisegale) assessed at a lower annual rate.

Following Dissolution, all Furness Abbey properties were held by the Crown through the Duchy of Lancaster (Selby 1882, 97) until at least 1620 but thereafter came into the possession of George Villiers, 2nd Duke of Buckingham (1628-87), a one-time royal favourite.⁶ In 1666 Villiers, who hitherto had earned £112 14s 9¼d from annual, fixed fee farm rents across Newby manor, assigned the right to collect the rents to George Monck, 1st Duke of Albemarle (1608-70), thereby effectively passing the manor over to Monck (Lancashire Grants and Surveys 1666).⁷ Elizabeth, Dowager 2nd Duchess of Albemarle, married Ralph Montagu, 1st Duke of Montagu (1638-1709) in 1669, at which point the manor came into the hands of the Montagu family. Ultimately, the heir to the Duchess of Montagu – Elizabeth, Duchess of Buccleuch – inherited the manor. She and her husband, Henry Scott, 3rd Duke of Buccleuch, assigned the manor in 1810 to James Farrer of Lincoln's Inn Fields and Clapham Lodge for the sum of £5000, a conveyance registered in 1811 after which the manor of Newby was held by successive generations of the Farrer family who eventually built Ingleborough Hall in Clapham (WYAS Wakefield 1810), thereby crystallising their long-sought aspirations to become members of the local landed gentry despite their origins in a relatively lowly position (*ibid*). One matter is certain: whichever aristocrat or member of the gentry owned the manor, the customary tenants of Thorns paid their annual rents regardless. Equally probable is that none of these aristocrats had any idea where Newby or Thorns were.

The Farrers assiduously bought up individual properties and lands across the manor, partly to consolidate their new landed status and partly from a desire to develop a grouse shooting focus, one of the key attributes of any landed estate at that time (Table 6.3).

Table 6.3 Farrer purchases in Upper Ribblesdale

Property	Date purchased
Camm	1815, 1819
Dry Lade	1852
Gale	1811
Gearstones	1817
Ling Gill	1815, 1821, 1836
Netherlodge	1830, 1852
New Close	1818, 1830
Newby Head	1818
Syke	1852
Thorns (part)	1824

Source: NYCRO. ZTW III. 1/2

All these lands and properties were sold by the Farrers' Ingleborough Estate to settle crippling death duties in 1951-52 (pers. comm. John Farrer 24 February 1998).

4. Farms – past and present

⁶ WYAS, Morley. WYL 524/143.

⁷ The editor is indebted to Crispin Powell, Archivist, Buccleuch Living Heritage Trust, Boughton House, Kettering, for providing him with a copy of the Deed Poll and for other information received by email. (Lancashire Grants and Surveys 1666).

Upper Ribblesdale today has eight working farms; about twenty other farmsteads or collections of farmsteads are known to have existed at one time or another though some had multiple occupancies, as did Thorns. Some of the 'lost' farmsteads have been reduced to single barns with no surviving trace of the house, physical traces of others have disappeared completely, while yet others are now dwellings that no longer work the land as discrete farms (Fig. 6.3 and Table 6.4). The location of one (Lower Parsin) can no longer be precisely determined even though documentary evidence confirms its former existence; Raisegale has recently been identified by a combination of field survey and documentary detective work (Johnson 2018). Lands that belonged to former farms have been absorbed into other farms by amalgamation to create larger and more viable farming units: the smaller farms simply could not survive in today's commercially-oriented environment, but the processes of retrenchment and consolidation date back to the second half of the nineteenth century.

A journal written in 1669 listed tenements across the modern parish of Horton in Ribblesdale and 'Horton Fell, w^{ch} is called the uppe lordship, a[n]d was some of the la[n]ds belonging to the Abby of Fornace: These pay no Tythe Corne. In Horton fell are these Hamlets Cam 4 houses, Thornes, Nether-lodge, Ingman lodge, Selside, Linggill Birkwith' (Johnston 1669. 151, transcription by David Johnson).⁸

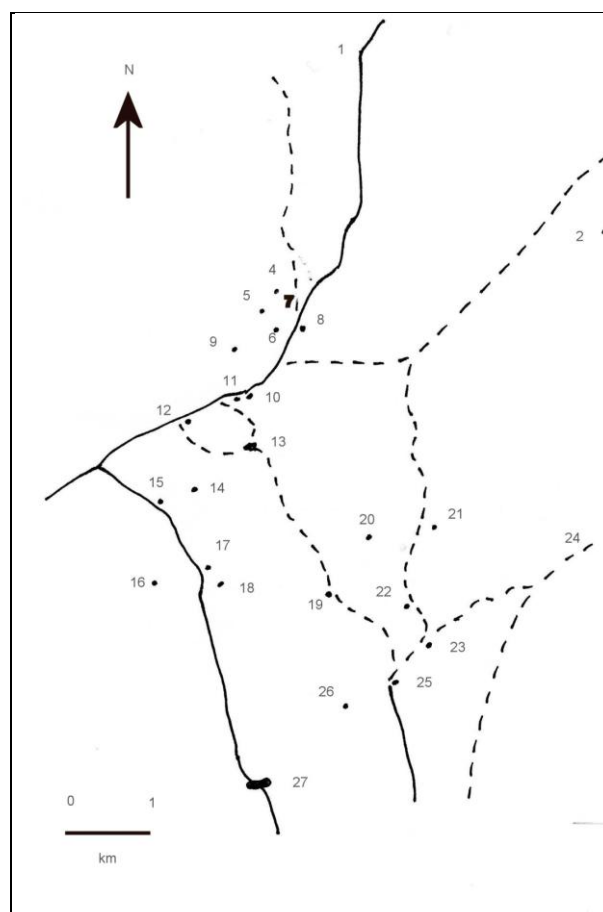


Fig. 6.3 Farms in Upper Ribblesdale, past and present. For numbers see Table 6.4. Solid lines are modern roads, dashed lines are major historical routes

⁸ Lower Parsin and Raisegale were in Ingleton township, as is Gearstones.

Table 6.4 Farms in Upper Ribblesdale, past and present

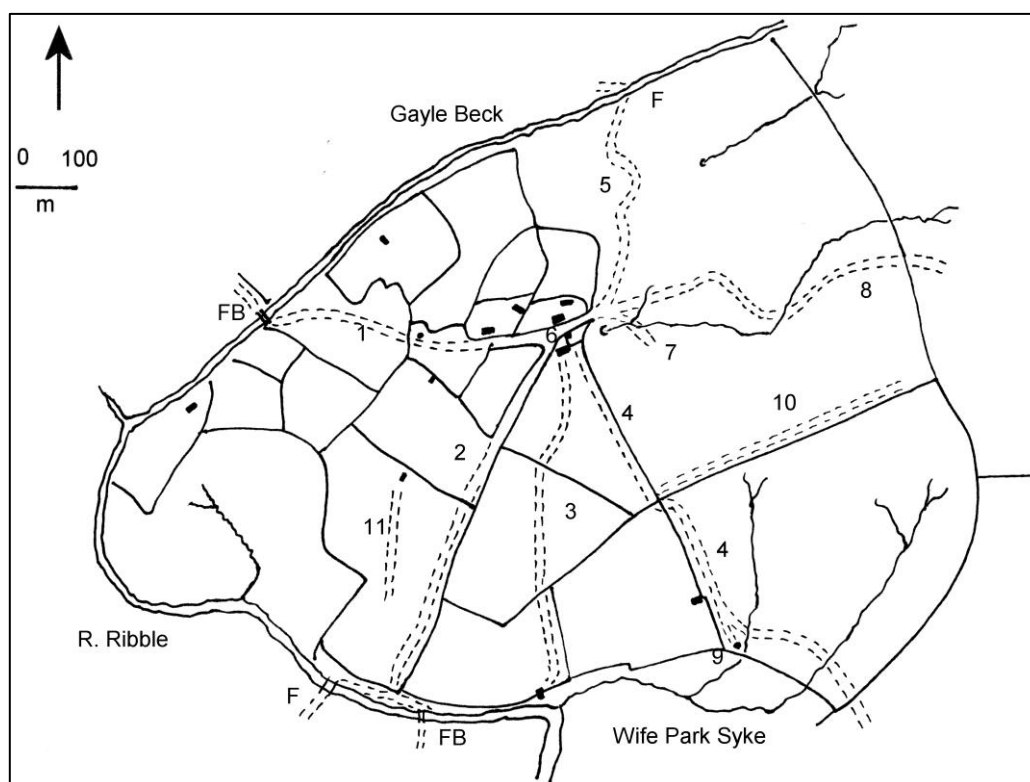
Map no.	Farm name	Known dates	Current status
1	Newby Head	18 th century - present	Active farm
2	Cam	Monastic - 1980s	Non-farm dwellings
3	Lower Parsin	1669	Unknown location
4	High Gale	1610 - present	Active farm
5	Low Gale	1779 - 98	Field barn only
6	Gate Cote	1718 - 1807	Field barn only
7	Raisegale	1620 - 1803	Scant remains only
8	Intack	1830 - 1841	Field barn only
9	Winshaw	1679 - 1819	Non-farm dwelling
10	Far Gearstones	Monastic - present	Active farm
11	Lower Gearstones	Monastic - present	Non-farm dwelling
12	Ribblehead House	1674 - 1827	Field barn only
13	Thorns	1190 - 1881	Ruins
14	Wife Park	1622 - 1653	Footprint only
15	Gauber	1719 -	Non-farm dwelling
16	Colt Park	Monastic -	Non-farm dwelling
17	Ashes	1569 -	Non-farm dwelling
18	Lodge Hall	Monastic - present	Active farm
19	Nether Lodge	Monastic - present	Active farm
20	Ling Gill	1337 - 1836	Ruins
21	Syke	1619 - 1871	Footprint only
22	Dry Lade	1619 - 1852	Field barn only
23	Old Ing	1695 -	Non-farm dwelling
24	Green Haw	1618 - 1830	Footprint only
25	High Birkwith	Monastic - present	Active farm
26	Low Birkwith	Monastic - present	Active farm
27	Selside	11 th century - present	One active farm

In modern times, those settlements that are still working farms consist of a single farming unit, a single farmstead or what in the past would have been termed a single tenement or *messuage*, the latter defined as ‘a mansion house and its grounds or lands’. The meanings of words change over time and historically a mansion house was not necessarily the image we would now conjure up of a stately pile or a very large house: it was merely a house where people lived, though not a lowly hovel. Thus, in simple (modern) terms, a messuage was a house and its lands. Many that are now single farm units were in the past multiple tenements under multiple tenancies, all paying annual rents and other periodic dues to the lord of the manor through the manor court system, in the case of Upper Ribblesdale to the court of Newby manor. It has often been wrongly assumed, however, that where a given settlement in the court records mentioned three, or six or whatever, tenements then all of them were sited at one place. In reality it does not mean that Nether Lodge, for example, which had four tenements from 1662-67, had all four situated at what is now Nether Lodge farm: rather the four were dispersed across the wider Ling Gill area. Similarly, Birkwith, which had six discrete tenements in that decade, did not have all six at either the modern High or Low Birkwith farms: these were two of the six, plus the former Old Ing, and the long-gone Green Haw, Dry Lade and Syke farms. For this period Thorns was inconveniently listed along with Ingman Lodge/Lodge Hall with a combined total of twelve tenements.⁹ Similarly, the until-recently elusive Raisegale had five – High Gale, Low Gale, Gate Cote, and Raisegale itself with two discrete tenements.

⁹ WYAS, Morley. WYL 524/210.

HISTORICAL TRACKWAYS THROUGH THE THORNS LANDSCAPE

Sheila Gordon



*Fig. 7.1 Historical trackways through Thorns
(F = ford; FB = footbridge. For trackway numbers, see text)*

Contents

1. Survey methods
2. Description
3. Discussion
4. Thorns Gill Bridge

The settlement at Thorns was the crossing point for travellers from many directions as they passed between the fells, hence the proliferation of trackways here. Documentary evidence was found for ten routes and of these signs were found on the ground for eight, whilst a 'new' trackway was also discovered which is not shown on any historical mapping.

1. Survey methods

The volunteer survey team started with a sketch map showing the lines of routeways known from historical mapping and identified during an initial walkover. Proforma survey forms were produced to ensure consistency throughout the survey. Four survey days were spent in the field, involving nine volunteers. Each trackway was examined at various points along its length and details such as visibility, width, type of surface, and sinuosity were recorded. A photographic record was kept. Each survey team also considered what purpose each trackway may have served.

2. Description

Fig.7.1 shows the trackways surveyed during the project.

Trackway no. 1

Within the survey area, this trackway commences at Thorns Gill Bridge (SD7775 7942) and initially the grassy track has evidence of paving or a bedrock surface beneath the turf, extending for approximately 15m from the bridge before it turns to head north and then north-east. Width here is 1.65m.

At SD7785 7946 the curvilinear trackway changes direction to east-north-east but no obvious width can be estimated at this point.

At SD7796 7942 a hard surface appears as the trackway goes through a gateway in ruinous walls before passing behind a lime kiln.

At SD7808 7939 the trackway is enclosed on both sides by dry-stone walls although there is briefly an open section on the south-east side where the wall has been dismantled.

At SD7813 7939 the wall on the north-west side turns northwards and the trackway remains open on its north side, past the remains of a building and to the end of the trackway where it enters the settlement (Fig. 7.2).



Fig. 7.2 Trackway no. 1 at its east end (Sarah Hunter)

At SD7815 7939 a solid surface, probably bedrock, was found about 300mm below the grassy surface and this extends for 13m to the end of the trackway where it meets Trackway nos. 2 and 6. At this point the track is 2.5m wide.

Trackway no. 1 was part of the main route through Thorns from both Ingleton and Dentdale and as such formed part of a major packhorse route heading southwards to Settle and the Aire Gap.

Trackway no. 2

This trackway is named on all OS mapping as Nan Bottom Lane and it starts at SD7818 7938 where a small stream runs across it, at the junction with Trackway nos. 1 and 6.

The sinuous trackway heads south between walls and has a width of 4.7m in this section. The east wall is sound whilst the west is in ruins. A hard surface was found here by probing, and it is probably a made rather than a natural surface.

At SD7814 7933 the trackway's direction alters to south-south-east.

There is a field gate on the east side, giving access to the field called Jammy, beyond which the lane is blocked by a ruinous cross-wall, possibly erected in relatively recent times to help with stock management. Width here is 2.8m and the paved surface continues. At SD7812 7928 the lane opens out into a field called Pry where the east wall ends and beyond which no more solid surfaces were found (Fig. 7.3).



Fig. 7.3 Trackway no. 2 opens out into Pry (Gayle Wray)

From this point there are no visible signs of the trackway as it drops downhill towards the Ribble.

At SD7801 7900 a ditch and bank meets the trackway coming in from the west.

The trackway crosses the wall at a field gate (SD7797 7886), and the trackway is shown on OS First Edition mapping (surveyed here in 1846-48) heading for a ford (SD7789 7881) across the River Ribble (Fig. 7.4), thence round the northern flanks of Ashes Eller Bank, whereas Second Edition mapping (surveyed in 1893) shows it crossing a footbridge (SD7882 7882) further downstream. The present remains of an iron bridge were a modern replacement for the original bridge which was long since swept away by flood water.



Fig. 7.4 Trackway no. 2 at the ford across the Ribble (Gayle Wray)

No evidence was found of the trackways approaching the ford or the original ruined footbridge (SD7882 7882), and the ground is exceedingly boggy. However, there is a raised embankment which runs in the direction of the footbridge, which has also been damaged in a flood.

A track is visible on the far side of the river going round Ashes Eller Bank Fell on its south side; First Edition mapping shows it going round the north side, and Second Edition mapping going right over the top; it originally carried on to Ashes farm, Lodge Hall and beyond.

Trackway no. 3

This trackway commences at the west end of the bank barn (Thorns 10) at SD7818 7936, and heads south and is initially indistinct (Fig. 7.5), apart from a grassy section between rushes where it is sinuous but with no apparent hard surface beneath.



Fig. 7.5 Trackway no. 3 leading away from the bank barn (Carol Ogden)

After being rather vague and meandering south-south-eastwards, at SD7816 7932, it becomes more distinct.

At SD7818 7920 the trackway passes through a field gate and changes direction slightly to the south-east.

At SD7819 7902 it crosses a derelict wall and at SD7820 7907 appears as a holloway which follows a sinuous course as it descends towards the site of a long-demolished house called either Hipping House or Wife Park. This area is very boggy. The holloway width is 1.5m and depth 250mm though later (at SD7820 7890) it widens to 2.2m with a depth of 200mm. Eventually, approaching the former house site, the holloway disappears in boggy ground.

Very little remains of the house, except for some cornerstones and footings embedded in the boundary wall close by suggesting they are remnants of the house. Hipping House was marked on First Edition mapping but not on subsequent editions; however, the stepping stones are not shown on any edition.

The word 'hipping' denotes 'stepping stones' which suggests that the route carried on across the river just beyond the house, probably joining up with Trackway no. 2, but no trace of such a track or path is to be seen on the ground beyond the Ribble. The actual hippings (Figs. 7.6 and 7.7) are still visible at low water (SD78188 78793) though time has not treated them kindly and to cross them now would be hazardous. Lying more or less on the line of the stepping stones is a modern metal-mesh flood gate (see Figure 7.6) which is anchored on the east bank to four vertically-set slabs of flagstone in a single line (Table 7.1). It is possible that their original purpose was to anchor an earlier flood gate – the heavy-duty chains that link the slabs together are certainly not modern – though they could have provided a safety line for negotiating the stepping stones (see Figure 7.7).

Table 7.1 Vertical slabs at the hippings

Slab no. counting away from the river	Height (m)	Base width (m)	Detail
1	1.7m	550mm	Three small holes drilled through; set 3.5m from no. 2
2	1.2m	400mm	One large hole drilled through; set 4.3m from no. 3
3	1.2m	550mm	As no. 2; set 4.3m from no. 4
4	1.3m	550mm	
Chain links			The western half has 5 inch forged links; the rest 2 inch forged links



*Fig. 7.6 The stepping stones by Hipping House, looking upstream
(David Johnson)*



*Fig. 7.7 The stepping stones, looking towards the west bank
(David Johnson)*

Trackway no. 4

This trackway heads south-east from the bank barn (SD7820 7939). The track clearly pre-dates the stone wall next to the barn as there is no evidence of a blocked gateway and the modern stile does not replace an earlier stile.

Beyond this wall the route follows the long distance path, The Ribble Way, on the west side of a long rectilinear wall, but there is no evidence of the track on the ground.

At SD7835 7915 part of a holloway is seen heading diagonally beneath cross walls which may be the original line of the track as early editions of OS mapping mark the route on the east side of the wall.

From this point the route originally descended to Back Hools Barn on the east side of the wall and barn where the ground is now very boggy.

At SD7845 7900 beyond the barn, the trackway heads east to cross a small stream which itself eventually runs into Wife Park Syke. The bridge was built with large stones at the side

indicating an older bridge, 1.5m wide (Fig. 7.8). The trackway has a solid surface beneath, either side of the bridge, and it continues all the way to a ruinous lime kiln.



*Fig. 7.8 Trackway no. 4 crossing a small stream on a stone bridge
(Carol Ogden)*

At SD7860 7892 the trackway passes above the lime kiln and its quarry but First Edition OS mapping shows the track running beneath the kiln and quarry. If this were the case, later quarrying must have caused the track to be diverted to its present course.

The trackway changes direction here to east-south-east, and has a width of 2.4m. Beyond here the ground is now very wet and no hard surface was found.

At SD7870 7881, the southern end of the survey area, the trackway meets a wall and passes through a field gate into Crutchin Gill Rigg. Beyond the gate there are no visible signs for quite a way. Early OS mapping shows the route continuing on to Nether Lodge and High Birkwith and beyond. This trackway formed part of a major north-south packhorse route which continued down the valley towards Settle. As it approaches Nether Lodge there are clear signs that it was carefully engineered.

Trackway no. 5

Trackway no. 5 leaves Thorns at SD7825 7944 at a wall corner east of the settlement, adjacent to Trackway no. 8 initially.

It is intermittently seen as a sinuous holloway heading north-north-east through a rushy area (Fig. 7.9).

At SD7827 7951 stones are visible on the track surface and it is braided here. They are the remains of an earlier – possibly original – laid surface, necessary as the ground is so wet.



Fig. 7.9 Trackway no. 5 showing as a line of rushes in a holloway (Gayle Wray)

At SD7828 7953 stones are again visible, also in a holloway. Width averages 2.5m. The holloway is more distinct at SD7832 7959 and it soon joins a modern farm track (SD7835 7967). Width here is 2.5m and depth 600mm. It is probable that the old trackway surface lies beneath the farm track before emerging again at SD7824 7982.

The trackway then heads westwards before turning north to descend towards Gayle Beck. A hard surface is apparent at this point, where width is 1.9m. At SD7822 7984 the holloway is very obvious as it descends towards the beck. It is braided at this point and heads north-east. The width of the holloway here is 1.9m and depth 700mm.

At SD7822 7982 the trackway reaches the beck and the original fording point (Fig. 7.10). Beyond the beck the trackway is shown on early mapping heading south-west and then north-west to meet up with the major east-west route way which is now Blea Moor Road.



Fig. 7.10 Trackway no. 5 at the ford across Gayle Beck (Gayle Wray)

Trackway no. 6

This commences at SD7818 7939 at the junction with Track no. 4 and runs in a north-north-east direction through the centre of the settlement (Fig. 7.11), confined between stone walls. Width averages 3.3m and the track is grassy overlaying a man-made cobbled surface. At SD7820 7940 the edge of the paved surface is revealed.



Fig. 7.11 Trackway no. 6 within the settlement (Sarah Hunter)

At SD7822 7942 the trackway changes direction to the north-east and widens. Stones are visible on the south side, where a wall was moved further back.¹⁰ Width here is 2.5m. The grass overlying the cobbled surface continues to the end of the trackway at a wall and field gate. Beyond is open moor where Trackway nos. 5 and 8 commence.

Trackway no. 6 appears to have been the main thoroughfare through Thorns itself.

Trackway no. 7

According to early OS mapping, Trackway no. 7 runs from the end of Trackway no. 6 in a south-south-east direction to the original Thorns boundary, but no evidence was found on the ground or on aerial imagery.

Trackway no. 8

This newly-found trackway which starts at SD7825 7943 is not shown on First Edition six-inch mapping. It commences just beyond the end of Trackway no. 6 and is sinuous throughout. A holloway is visible amongst the rushes (Fig. 7.12), with a width of 3m and depth of 500mm. No hard surface was found along its length.

At SD7834 7947 it disappears in a very marshy area, but at SD7838 7951 it reappears, where width is 2m and depth 500mm, before it disappears again.

At SD7840 7952 it is contained within a holloway and alters direction to east-north-east. Width is still 2m and depth 500mm. At SD7845 7953 the holloway is lost again before reappearing at SD7849 7952, where width is 2m and depth now 300mm. At SD7857 7950 it reaches a depth of 600mm.

¹⁰ During Phase 2 of excavations within Thorns itself, in September 2017, a narrow strip of turf was peeled back across the trackway just east of the part-standing house. This confirmed the presence of a cobbled surface, 200mm below the turf, and the footings of the original wall line.

At SD7860 7949 the holloway fans out into a boggy area as it approaches Cove Syke. Width is still 2m but depth 400mm at the probable main crossing point of the syke.

At SD7863 7950, on the east side of the syke, the holloway changes direction to east-north-east and is braided at this point. Width is 2m and depth 500mm.



Fig. 7.12 Trackway no. 8 showing as a sunken rush-filled holloway (Sarah Hunter)

It temporarily disappears again at SD7875 7959 but at SD7877 7960 it cuts through a prominent ditch and bank so clearly post dates the ditch and bank.

SD7883 7962 marks the end of this trackway within the survey area at the Thorns-Cam End boundary wall, where trackway width is 2m and depth 300mm (Fig. 7.13). There is no evidence of a blocked-in gateway in the wall here, indicating that the trackway had gone out of use before the wall was built.



Fig. 7.13 Trackway no. 8 at the Thorns-Cam End boundary wall (Sarah Hunter)

Beyond this wall the holloway carries on in a gentle sinuous manner before changing direction markedly (SD7898 7961) and petering out into an extensive boggy area in a hollow between Broad Reyn Hill and Round Hill at SD7901 7968.

Trackway no. 9

This grassy ramp-like route leaves Trackway no. 4 at SD7955 7892 and has a hard surface approximately 80mm beneath the turf and a width of 2.3m. The hard surface continues all the way to the lime kiln where the trackway ends. There are rushes half way along but otherwise it is grassy throughout.

At SD7860 7890 the trackway finishes at the kiln draw arch (Fig. 7.14). Width is still 2.3m.



Fig. 7.14 Trackway no. 9 by the now-ruined lime kiln (on the left) (Sarah Hunter)

This trackway must either have been engineered to help transport burnt lime away from the kiln to Thorns or was maintained after the original line of Track no. 4 was moved above the kiln.

Trackway no. 10

The trackway commences in a wall corner at SD7836 7918. There are no visible signs and the ground is full of rushes but it is shown on First Edition six-inch mapping as a linear route running beside a wall in an east-north-east direction on the north side of the wall. It is not shown on Second Edition mapping.

At SD7874 7936 a vague holloway can be seen full of rushes. No hard surface was found throughout its length. Width here is 1.4m and depth 500mm on the north side, but the south side is lost beneath wall tumble.

At SD7877 7937 the holloway is slightly more distinct, and at SD7889 7943 the trackway finishes just short of a wall junction on the original eastern boundary of Thorns. Width is now 1.1m and depth 250mm.

This trackway does not continue beyond the wall and may well have served its purpose as a routeway transporting stone from redundant walls west of the settlement to build the wall alongside which the track ran.

Trackway no. 11

This is first shown on Second Edition mapping leaving Low Flat Barn and heading in a straight line due south towards the River Ribble, but no trace was seen on the ground.

3. Discussion

The settlement at Thorns lay on a packhorse route which came from the north from Dentdale, crossing over the flanks of Wherside along the historical route known as Craven Way, before dropping down towards Ribblehead and on to Thorns Gill Bridge via Ribblehead House. From the bridge the route followed Trackway no. 1 and part of Trackway no. 6 through the centre of Thorns before joining Trackway no. 4 southwards past Back Hools Barn and eventually on to High Birkwith where it joined up with other routes coming over

from Langstrothdale and Cam End. Thorns is recorded from 1189-90 as a property of Furness Abbey and its effective management would have necessitated a network of links to the rest of the Abbey's properties around Ingleborough and to their major centre – or grange – at Newby near Clapham. The obvious way out of Thorns northwards would have been via the later Ribblehead House so the possibility that the packhorse bridge has monastic origins cannot be ruled out. For movements south from Gearstones, especially of cattle purchased at the drovers' fairs there, the way south would have been across the ford and along Trackway no. 5 and certainly not over the narrow packhorse bridge.

Trackway no. 8 heads in an east-north-east direction from Thorns and it is possible that it may have linked up with the major routeways known as Cam High Road which carries on into Wensleydale, or with Cam Road that went via Ling Gill Ridge southwards from Cam High Road. As the trackway clearly bisects the major north-south ditch and bank feature the track must post date this linear feature. Equally, as the present north-south boundary wall cuts across the track, with no convincing sign of a blocked gateway visible in the wall, it is likely that the track had gone out of use by the time the wall was erected. The fact that Trackway no. 8 peters out in a bog before reaching Round Hill suggests that it may have been made and used as a turbarry road to fetch peat from the mosses back to Thorns and not as part of a through route.

Trackway nos. 2 and 3 both leave the centre of Thorns and head in a south-west direction towards the River Ribble, Ashes, Lodge Hall and beyond. Thorns appears to have been a focal point for all these trackways and as such must have been of some importance and a hive of activity in its heyday. Trackway no. 2 is the only one to have a surviving name – Nan Bottom Lane – whose significance is unknown. It connected Thorns with the farms west of the Ribble, notably Lodge Hall, and Ashes and Gauber with which latter two Thorns was for many years connected in terms of land management. Trackway no. 3 similarly connected Thorns and the outside world with the 'lost' farmstead recorded in the past as either Wife Park or Hipping House at the confluence of Wife Park Syke and the Ribble. There are the remains of stepping stones across the Ribble but for much of the time high water flows make them impassable; they are not marked on any OS mapping.

Trackway no. 9 may have been part of the original line of Trackway 4, if the alignment on the OS First Edition six-inch map is to be accepted, or it was specially made to lead burnt lime from the kiln back to the Thorns enclosures.

It is most likely that Trackway no. 10 was specially laid with the sole purpose of leading stone from then-redundant walls between the settlement and the packhorse bridge when the wall it runs alongside was built in 1802-03.

No trace was found of Trackway no. 7, whose original purpose is unknown.

Considering the boggy nature of much of the ground in this area, beyond the immediate vicinity of the settlement, it is perhaps surprising that so many of the trackways are still traceable on the ground. The width of the tracks is in many places indeterminate but where there is evidence it varies from 1.4m to 4.7m. However, a measurement of between 2 and 2.5m was measured consistently. In the case of the Holloways, depth readings are pure conjecture as they will have silted up over time, but a measurement of 200-750mm was found, with 500mm being the norm.

Examination of LiDAR imagery clearly shows the lines of Trackway nos. 2, 3, 8 and 9, and the western section of no. 1, as plotted on Figure 7.1, in all cases as sunken holloways thereby confirming the fieldwork results.

4. Thorns Gill Bridge

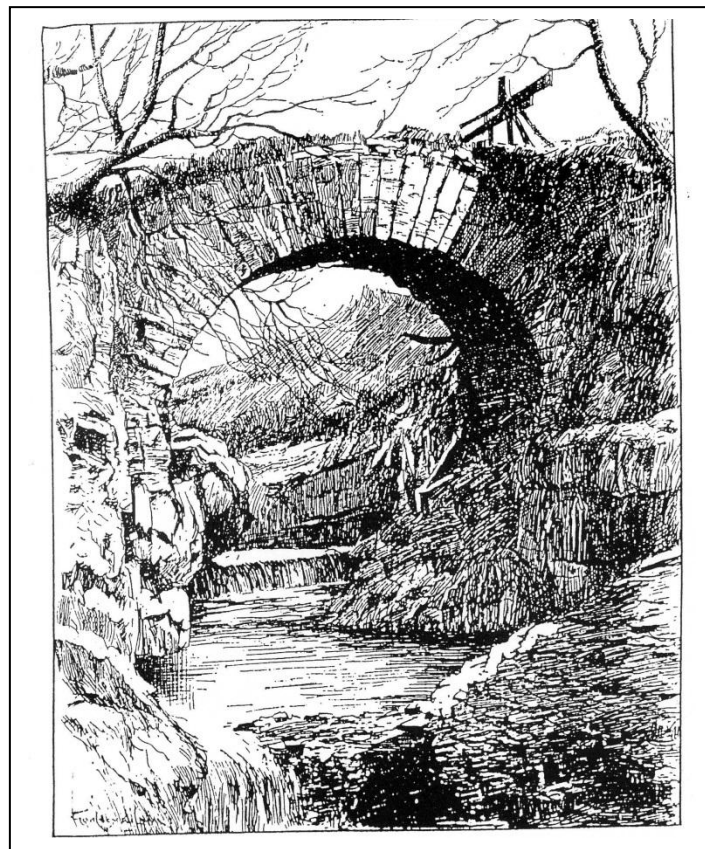
David Johnson

A feature in the local newspaper, *The Craven Herald and Pioneer*, from April 1939, in a long-running series entitled 'Here and There in Craven – No. 6', described the bridge as

'... a true pack-horse bridge in that it is without the parapets that chafed the bales of wool slung on either side of the pony ... The bridge is of keyed limestone slabs, the interstices in early Spring aglow with clumps of saxifrage, the heather blue of wild thyme and the bright yellow of the ubiquitous "Creeping Sarah". The track itself, closely cropped by sheep, has grass as fine as any lawn, while under the arch the mountain torrent frets in a deep-cut limestone channel.

'A tribute must be paid to landowners and farmers for having preserved this bridge. Many have fallen into ruin, but the Thorns Gill example stands as stoutly in this petrol age as when Cam Fell threw back the then music of "jiggler" pony bells.'

Setting aside the occasional flowery journalese, one can but say Amen to that description. The piece was accompanied by an etching by the then well-known local artist Godfrey Wilson (Fig. 7.15).



*Fig. 7.15 Thorns Gill Bridge in 1939
(Godfrey Wilson, The Craven Herald and Pioneer)*

HISTORICAL DITCHES AND BANKS IN THE THORNS LANDSCAPE



Fig. 8.1 Feature 12, the ditch on the left (west) side of the sinuous bank which mirrors the later wall (David Johnson)

Contents

1. Introduction
2. Methodology
3. Description
4. Discussion
5. Conclusion

1. Introduction

Field walking during the planning phase of the *Thorns through Time* project identified a network of hitherto unrecorded ditches and adjacent banks of variable lengths, widths and heights. This network extended across the entire wider Thorns area, including land which is no longer part of the Thorns agricultural holding. The network stretches from the Ribble in the west to the long boundary wall with Cam End (formerly Cam Side) in the east, and from Gayle Beck in the north to Wife Park Syke in the south.

This element of the project aimed to trace the full length of each ditch and bank feature, to record dimensions, to accurately plot them on a geo-referenced base map, and to interpret their original purpose.

2. Methodology

Each ditch and bank was plotted on a sketch base map showing its approximate alignment and given a code number (Fig. 8.2). Thirty discrete features were noted on the map. An initial briefing day was held to explain to potential volunteers what would be involved. Four survey days were held, between June and October 2016, during which each feature was surveyed and recorded in detail; two further 'mopping up' days were held in December 2016.

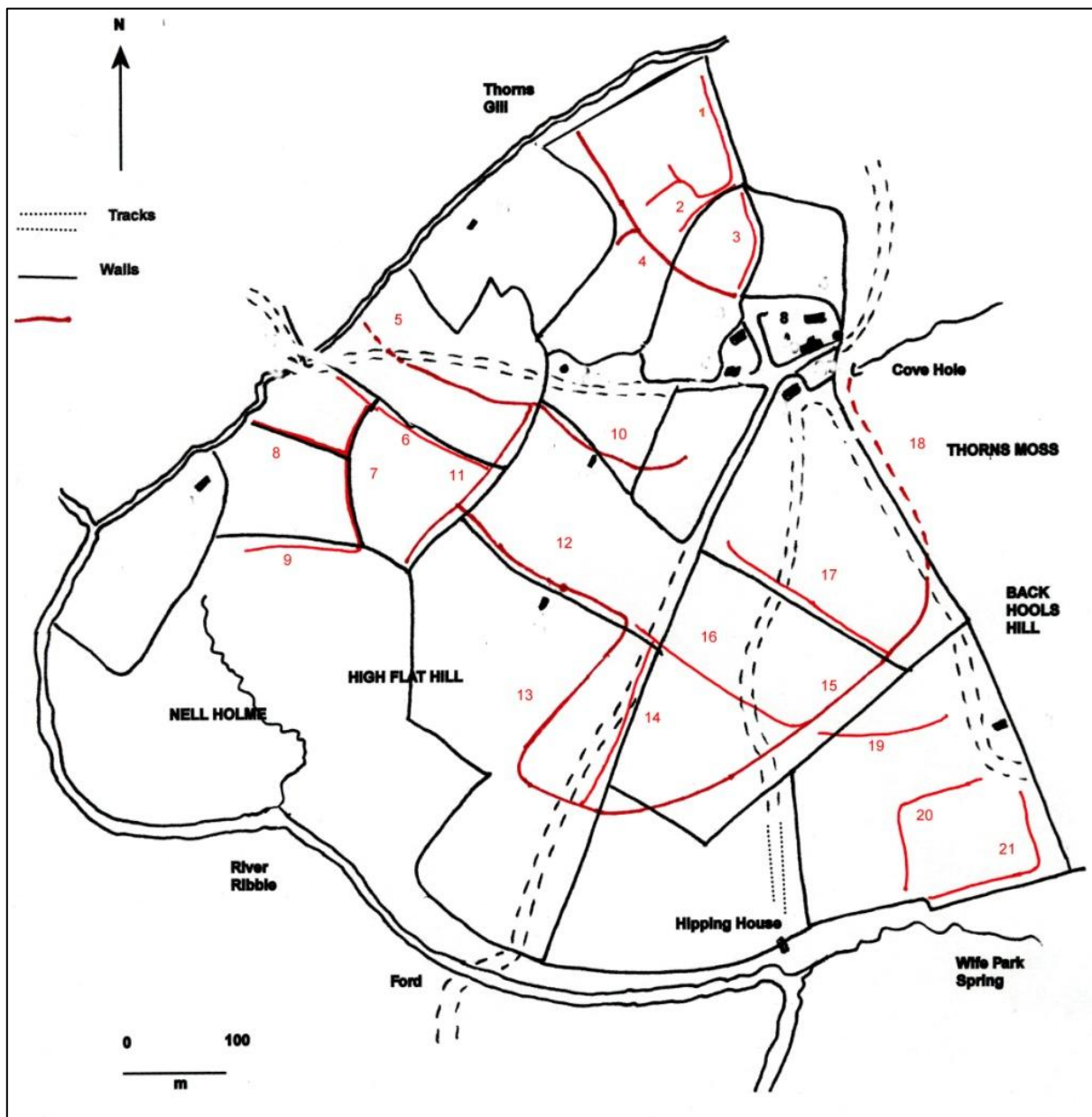


Fig. 8.2 Pre-survey sketch map of ditch and bank features

The length of each feature was recorded using the Google Earth Ruler tool.

Ditch width and depth and bank width and height were determined using tape measures. This was done as many times along each feature as was deemed necessary by changes visible on the ground.

Details of ditch and bank characteristics were recorded on proforma recording sheets. A photographic record was compiled.

Once field surveying had been completed and every ditch and bank revisited after summer vegetation growth had died back, a final survey of the whole area was undertaken by members of SWAAG using a mapping-grade GPS, with the results plotted on a geo-referenced base map. Fig.8.14 shows the distribution of all features logged.¹¹

Table 8.1 Basic variables for ditch and bank features

Feature no.	Length (m)	Ditch & bank	Bank only	Bank av. width (m)	Ditch av. width (mm/m)	Ditch av. depth (mm/m)	Type
1d	210	Y		2.56	2.31	420	FB
2	55	Y		-	3.3	300	FB
3	120	Y		-	1.9	200	FB
4	300	Y		2.9	3.6	420	FB
5	190	Y		-	3.13	200	FB
6	70	Y		-	2.1	300	FB
7	135		Y	1.2	1.35	760	FB
8	80		Y	-	-	-	FB
9	150	Y		1.1	1.87	300	EB
10	130	Y		4	3.8	400	FB
11	190	Y		4.1	2.15	430	FB
12	160	Y		2	1.6	1.25	FB
13	260	Y		1.2	1.67	680	FB
14	180	Y		-	-	-	FB
15	400	Y		3.65	1.98	360	FB
16	90	Y		2	2	980	FB
17	210	Y		-	1.7	-	FB
18	230	Y		3.6	-	650	FB
19	140	Y		-	800	100	DD
20	150	ditch only		-	-	-	DD
21	180	Y		2.1	2.25	500	EB
22	65	ditch only		-	500	400	DD
23	35	ditch only		-	-	-	DD
24	25	ditch only		-	-	-	DD
25	100	Y		3.6	-	700	DD
26	53	?	?	-	-	-	?
27	115	ditch only		-	-	-	DD
28	130	Y		2.07	2.45	670	EB
29	560	Y		2.9	3.37	600	EB?
30	670	Y		2	-	750	EB
Total	5385						

FB – internal field boundary; DD – drainage ditch; EB – estate boundary

3. Description

Based on the variables summarised in Table 8.1, the ditches and banks were classified according to their probable original purpose: short lengths of ditch with no clear bank, or only a very minor bank, were deemed to be relatively modern drainage ditches (DD); longer

¹¹ The GPS instrument used was a Spectra Precision ProMark 120 with a GLONASS GNSS Receiver and an Ashtech ASH 111661 antenna. Post-processing used Spectra Precision GNS Solutions software, version 3.80.8, with RINEX corrected data from OS reference stations at Giggleswick and Catterick Garrison.

interconnecting lengths – the majority in fact – were seen as a network of field boundary features (FB) dividing up the Thorns estate into discrete parcels of ground (fields as we would now call them) for stock management purposes; while larger and more prominent ditch and bank features on the periphery were classified as estate boundaries (EB).

The total length, as stated in Table 8.1, includes all the individual features but, if those seen as drainage ditches rather than boundaries are excluded, the total length reduces to 4865m. If the following figures have any statistical significance, ignoring the drainage ditches, mean length is 200m and median length is 180m.

For the ensuing paragraphs, refer to Figure 8.1.

Feature no. 1 runs upslope from Gayle Beck, starting c. 10m south of the beck at a point where the steep stream bank reduces in gradient. Along with Feature nos. 2, 3 and 4, it subdivides what current OS maps name as Thorns, an area now dominated by coarse grasses and rushes with a very recent area given over to mixed native-species tree planting. Feature 1 was surveyed as four sub-sections of one overall ditch and bank because the length running south from Gayle Beck (1d) turns through a curving ‘right-angle’ to run west-south-west (as 1c), then through a reverse angle to head northwards (1a, Fig. 8.3) with a branch to the west (1b).



Fig. 8.3 Feature no. 1a with the bank clearly seen to the right of the ditch (John Asher)

Bank and ditch 1d were originally perceived as the eastern boundary of Thorns estate, given their prominence in the landscape, but the later discovery that Thorns Close – the very large enclosure to the east of the wall parallel to 1d – was historically part of Thorns caused that view to be rejected. Bank/ditch 1d has an average combined width of 4.9-5.8m contrasting with those for 1b, c and d which range from 3.8-4.3m, 3.6-3.9m, and 2.1m respectively. The ditches lie south of 1b and 1c but east of 1a and 1d (Fig. 8.4).¹²

¹² Feature 1d was subjected to excavation – see Chapter 12.



Fig. 8.4 Feature no. 1d showing the difficulties of surveying with such dense vegetation growth (John Asher)

Feature no. 2 runs parallel to, and a short distance south of, 1c and is distinctly curvilinear in plan form whereas 1a-d were all rectilinear though with rounded end-corners. Feature no. 2 has an average ditch width of 3.3m and average depth of only 300mm; it was not possible to measure bank width owing to its overgrown and physically-degraded nature and to the presence of a later field wall laid on top of the bank. The ditch lies south of the bank.

Feature no. 3 continues the curving line of 1d, separated from it by short gaps where nos. 1c and 2 intrude. Feature no. 3 has a later field wall running along its eastern side, and in part on top of it. The ditch is uniformly 1.9m wide throughout but is only 200mm deep on average. The bank, on the east side of the ditch, is overgrown and of indeterminate width given the presence of the later wall.

Feature no. 4 terminates c. 30 m south of Gayle Beck and describes a gently curving line to its other end on the north side of the settlement at Thorns. The ditch lies east of the bank throughout; ditch width ranges from 2.3-5.6m, averaging 3.6m; and its depth averages 400mm. Where bank width can be firmly defined it is almost uniformly 3m, narrowing to 2.6m at the southern end. A short spur westwards from the main bank has a ditch on its north side. It can be concluded from ground evidence that Feature nos. 1d, 3 and 4 were external boundaries of a large field lying immediately north of the settlement while nos. 2 and 1a, b and c were internal sub-divisions.

Feature no. 5 marks a major boundary of a former field system in the north-western corner of the Thorns estate, bounded on the other sides by Gayle Beck and the historical external boundary of the estate. Feature no. 5 consists of a slightly curvilinear and sinuous ditch and bank that are significantly wider than the other features in this area: average ditch width is 3.1m and depth 200mm though, as with all the ditches, there has been considerable slippage of loose soil from the banks into the ditches along with silting up of the ditches from water flow along them. The ditch lies on the west side of the bank. The western end of this feature terminates c. 20m from Gayle Beck where the natural gradient of the land levels off (Fig. 8.5).



Fig. 8.5 Feature no. 5 showing the ditch approaching Gayle Beck (Ian Fleming)

The eastern end of no. 5 runs seamlessly into **Feature no. 10**. Indeed they are one and the same feature. This is equally large in scale with ditch width averaging 3.8m and depth 400mm; the ditch similarly runs on the west side of the bank. For much of its northern length the bank has a later field wall on its top (Fig. 8.6).



Fig. 8.6 Feature no. 10 showing a ruinous stone wall on top of the bank (Ian Fleming)

Where it is possible to accurately measure bank width, no. 10 averages 4m. There is visible ground evidence that Feature no. 10 may be stone cored, though this is a tentative suggestion. It is curving in plan form and peters out at its eastern end for no apparent reason, seemingly unconnected to any other bank and ditch.

At the point where this project's survey has nos. 5 and 10 joining there is a junction with another bank and ditch, **Feature no. 11**. This forms the south-eastern boundary of the north-western field system. The bank is rectilinear with the ditch running along the north-western side of the bank, which has a later wall built along its entire length, either on or adjacent to it.

Average bank width is an impressive 4.1m, ditch width averages 2.15m and depth 430mm. Most of this bank is topped with a later wall.

Contained within the area bounded by Gayle Beck and Features no. 5 and 11 there are three (or possibly four) smaller features sub-dividing it into smaller enclosures. **Feature no. 6** is a rectilinear ditch averaging 2.1m in width and 300mm in depth with a bank on its eastern side, though the ditch is not apparent in the lower section. The bank appears to be stone cored and has a later wall built along its top. This continues as **Feature no. 7** which is curvilinear in plan form and only appears as a bank for most of its length: there is no ground evidence of a ditch at the eastern end though a ditch does become clear further along its course. The bank averages 1.2m wide, the ditch 1.35m and depth 760mm. It also has a stone wall running along its top. Running off nos. 6 and 7, at the point where they join, is **Feature no. 8** which runs in a broadly straight line to terminate above Gayle Beck. The bank has a later wall running along its top as well as possible (slight) evidence of a ditch on the western side of the bank, though this is tentative. This feature is too indistinct and masked by the wall for accurate measurements to be obtained. Not physically connected to nos. 5, 6 and 7 is a further possible bank – **Feature no. 26**. It is indistinct, may just have been a natural bank, and is included here as no more than a possible field boundary.

Feature no. 9 is seen as part of the external western boundary of the Thorns estate. It almost links up with no. 7 though there is a gap of 4-5m between them with no convincing evidence that an intervening bank has been levelled or a ditch filled in. This feature, with the ditch on the south-west side of the bank, is paralleled by a later field wall; average width of the ditch is 1.87m and the bank 1.1m with a general depth of 300mm, so it does not stand out physically as a major feature but it does lie on the line of the historical boundary between the Thorns estate and the Gauber estate so can be considered an external boundary. What originally happened where the bank/ditch now peters out, just above the point where the adjacent wall meets another wall, is unclear but there is no convincing ground evidence of the feature having continued further west.

Feature no. 11 continues as a curvilinear offshoot to the east and south, designated **Feature nos. 12 and 13**. Feature no. 12 is a very clear, mostly rectilinear, ditch with a bank on its north-east side topped for most of its length by a stone wall. The bank was 'tied in' to the bank of Feature no. 11. Average bank width is 2m, thus about half of that for no. 11, and average ditch width 1.6m, rather less than that for no. 11; the depth of the ditch now, however, is 1.25m thus substantially greater than for no. 11. At the foot of the natural slope on which Low Flat Barn stands, Feature no. 12 divides in two: on the one hand it continues in the same direction up the opposite slope almost to the north-south field wall. On the other hand, it turns through an acute curving angle to head south-south-west, designated for this project as **Feature no. 13**. This runs down a natural and clearly pre-existing shallow valley; initially it could be read as a natural stream especially as the bank is indistinct and masked by dense rush growth (Fig. 8.7). About half way along its course, though, the bank becomes very clear as does the artificial nature of the ditch. Its man-made nature is confirmed beyond a natural stream that crosses the ditch and bank running north-west to south-east beyond which the ditch and bank then rise up a natural slope.



Fig. 8.7 Feature no. 13 with the bank clearly seen in the foreground and the ditch in the background running upslope (Lynda Hutchins)

Up to this point, ditch no. 13 lies on the west side of the bank with average widths 1.67m and 1.2m respectively, and average ditch depth 680mm and bank height 530mm. At the top of the natural rise the feature describes a sharp but curving change in direction to once again head downslope to a boggy area at the bottom. Though rush growth is dense for most of its length, both ditch and bank are clearly visible except where they cross the bog. Along this west-north-west to east-south-east line the ditch lies south of the bank.

Just before Feature no. 13 meets a long upstanding stone wall another bank and ditch joins it – **Feature no. 14**. It runs uphill from here to a point opposite the line of Feature no. 12's north-west to south-east alignment at which point the by-now almost imperceptible bank turns through a right-angle as a continuation of no. 12. Vegetation growth makes parts of Feature no. 14 difficult to see except in mid winter but much of it is visible; because of this it proved more than difficult to obtain reliable measurements. At the bottom of the hillslope Feature no. 13 becomes **Feature no. 15** which describes a 400m-long course northwards and uphill. While most of its length is straight it initially turns through a very gentle curve under two stone walls, one upstanding and one derelict (Fig. 8.8).



Fig. 8.8 Feature no. 15 showing the ditch and bank crossed by a later dry-stone wall (Ian Fleming)

The ditch lies to the east of the bank. Average ditch and bank widths are 1.98m and 3.65m respectively, making this a major boundary feature. The ditch now is only 360mm deep on average (Fig. 8.9).



*Fig. 8.9 Feature no. 15 with a clear ditch heading downslope
(Ian Fleming)*

At the eastern end of its long straight run, Feature no. 15 becomes Feature no. 18, though there is a gap of c. 6m between the end of no. 15 and the start of no. 18. This is probably not an original gap as the former north-south Trackway no. 4 cuts through the feature at this point, focussed on a field gate, so the bank was most likely levelled for the road and the ditch filled in.

About half way up the hillside **Feature no. 16** cuts Feature no. 15. The former has one short length east of Feature no. 15 which appears to terminate at the long stone wall mentioned earlier: there is no convincing ground evidence that it continued beyond the wall though **Feature no. 19** continues its line eastwards but with a very narrow and shallow profile, and this may just be a drainage ditch as it has no convincing bank. This short length of bank/ditch does not quite tie in with the orientation and positioning of the main part of no. 16 – they are offset by 2m or so. No. 16 runs across the field and under the long stone wall for a few metres to join the north end of no. 14. Feature no. 16 has a clearly visible ditch averaging 2m in width on the south-west side of the equally clear bank which also averages 2m wide; average ditch depth is 980mm. Some sandstone coring is intermittently apparent in the bank. Running diagonally across the upper part of this field is **Feature no. 27** which is very narrow, shallow and lacks a bank: it was interpreted as a modern drainage ditch.

Feature no. 16 is mirrored by a parallel ditch and bank feature further upslope and further to the north-east – **Feature no. 17**. This runs downslope from no. 15, with their banks tied in to each other, and terminates at the foot of the slope where a natural subsidence shakehole lies across its path. Whether it originally carried on beyond this point cannot be determined with any degree of confidence. The 1.7m-wide ditch lies on the south-west side of the indistinct bank. The ditch is too silted up to permit meaningful depth measurements. Where Trackway no. 3 cuts across this feature, the ditch and bank have been completely lost. This feature is more or less straight for its entire length. Several faint linear features running along the contours in this field seem to feed into no. 17, or stop short of it: whether this was a

reuse of ditch no. 17 as a later drainage feature or an indication that no. 17 originated as a drainage ditch could not be determined.

Feature no. 18 continues the curving line of no. 15 and runs in a straight line followed by a later stone wall all the way downslope to the Cove Syke swallow hole just east of the settlement. Though modern drainage grips were fed into the ditch, and the stone wall masks the top of the bank, it is still clear that this does constitute a ditch and bank feature with the ditch lying east of the wall. For this reason bank width is an unknown quantity and the ditch (now at 3.6m wide on average) is undoubtedly wider and deeper than when first excavated though above where the uppermost grip feeds into it average depth of 650mm may well be a true measure of its size.

In the south-east quadrant of what is now the Thorns estate, around Back Hools Barn, there is a network of straight, narrow and very shallow ditches with no convincing banks – **Feature nos. 19, 20, 22, 23 and 24** – which have all been classified as modern drainage ditches: nos. 19, 22, 23 and 24 all feed laterally into no. 20 which then cuts downhill to join Wife Park Spring. LiDAR data show a herring bone network of sub-surface field drains feeding into no. 20 from east and west confirming these to be drainage rather than boundary features. **Feature no. 19**, however, continues the line of no. 16 for c. 50m eastwards from the north-south field wall as a possible boundary line.

In this quadrant are three linear features that were clearly boundary markers. **Feature no. 25** may have been a continuation of no. 18 but the former presence of the main north-south trackway and present public right of way at the point where four walls meet would have caused the bank to be levelled and the ditch infilled. Thus, there is a gap with no visible bank or ditch. no. 25 runs downslope to terminate short of Back Hools Barn with the later wall having been built in the broad ditch on the east side of the bank. Where it can safely be measured, the bank is 3.6m wide and the depth of the ditch up to 700mm. Ditch width cannot be determined.

Feature no. 21 is a mostly clear ditch and bank feature that continues the line of no. 25 southwards from Back Hools Barn. The two may once have been a continuous boundary feature – if so, the building of the barn and its fold yard would inevitably have destroyed all traces of it. From the barn it is paralleled by the later stone wall, with the largely silted up ditch on the west side of the bank. It runs in a slightly sinuous line with bank width averaging 2.4m and ditch depth 550mm where clearly visible. At the bottom of the field the feature turns through an acute angle to run westwards but both ditch and bank are degraded at this point. After the turn, the feature is much more prominent in the landscape: bank width ranges from 1.8-2.1m; ditch width 1.9-2.6m; and depth averages 450mm. Along this length the ditch lies on the north side of the bank and for one section is not apparent on the ground. The feature is sinuous. For part of its length the bank is topped by a later stone wall, and at the western end the bank runs under the wall and *may* have continued on the south side of the wall, now outside the Thorns estate. No obvious termination point was identified.

On the south-western side of the estate a further length of very prominent bank and ditch – **Feature no. 28** - runs from near the major change in direction of Feature no. 13 to parallel the later stone wall downslope stopping just beyond another wall just short of where the Ribble formerly flowed. The ditch lies on the north-west side of the bank, between it and the wall (Fig. 8.10). Both bank and ditch are broad: the bank averages 2.07m and the ditch

2.43m. Depth ranges from 450-900mm. It is slightly sinuous in plan form. One large sheep scrape in the bank shows that it is composed almost entirely of soil with very little stone content.



Fig. 8.10 Feature no. 28 showing the prominent bank with the ditch between it and the wall (Ian Fleming)

In what is now called Thorns Close – historically part of a larger enclosure called Thorns Cow Close – to the east of the settlement, there are two major north-south ditch and bank features. **Feature no. 29** consists of a major 560m-long ditch, from 2-5.8m in width but now only 600mm deep on average, on the west side of a broad bank with an average width of 2.9m. In sections towards the southern end there appear to be banks on both sides of the ditch (Fig. 8.11) though in other sections the bank is difficult to demarcate on its outer edges.



Fig. 8.11 Feature no. 29 showing the ditch with a bank on both sides (Ian Fleming)

This very prominent boundary feature starts on high ground near the southern end of Thorns Close and initially runs downhill to the southern edge of an extensive area of bog through which flows Cove Syke. The ditch is on the east side of the bank. At this end point the bank

bifurcates and forms a rectangular 'enclosure' c. 20m on its north-south axis by 5.4-6m on the east-west axis (Fig. 8.12). There is a gap of 1-2m between the main bank and the side banks of the enclosure and the northern end is open to the bog.



Fig. 8.12 Feature no. 29 with volunteers and rucsacs marking the enclosure bank (Ian Fleming)

Feature no. 29 resumes on the north side of the bog and is again broken by a further area of bog (Fig. 8.13) and it terminates c.15m south of Gayle Beck. In this northern section both bank and ditch are mostly very prominent with both having their maximum widths here. In this section the ditch lies on the east side of the bank. Northwards of the second bog the bank appears to be stone cored throughout its slightly sinuous length.



Fig. 8.13 Feature no. 29 clearly showing the bank running down to a boggy area and the ditch beyond showing as a line of light-coloured rushes (Ian Fleming)

Feature no. 30 is 670 m in length and it is paralleled along its entire length by the later field wall dividing Thorns Close from the open fell of Cam End. It is sinuous throughout and changes alignment several times, here being west of the wall and there being to the east,

with prominent S-bends in the bank. For much of its length the wall runs within the ditch (Fig. 8.14). Where the bank/ditch meets the bog around Cove Syke there is a long gap where it would have proved impossible to create such a solid structure. Throughout almost its full length the ditch is on the east side of the bank except where the feature is east of the wall. Bank width averages 2m (ranging from 1.3-2.7m); because of the wall it is not possible to accurately measure ditch width but average depth is 760mm. In places the outer edge of the bank is over 700mm high in addition to the depth of the ditch. South of the straight wall that marks the southern end of Thorns Close, the ditch and bank are not seen and dense infestation of rushes prevents close examination. At times, along the curving wall that continues southwards, there is the occasional glimpse of what may have been a boundary bank but nothing that can be logged with any degree of conviction.



Fig. 8.14 Feature no. 30 with the bank close to the later wall which was built in the ditch (Ian Fleming)

4. Discussion

Close analysis of the data shown in Table 8.1, together with careful examination of each ditch and bank feature on the ground, enable certain conclusions to be drawn regarding the original purpose of each feature based on the identification of patterns apparent. Thus, the features have been categorised into four broad groups: external estate boundaries; major internal boundaries defining and partly surrounding sets of enclosures; less prominent internal 'field' boundaries; and those which are relatively modern drainage features. Each category will be discussed in turn. All ditches and banks are depicted on Fig. 8.15.



Fig. 8.15 Ditches and banks as sketched at the end of the field survey (compare with Figure 8.2)

External estate boundaries

It is impossible now to define the original full monastic boundary of Furness Abbey's estate at Thorns but it is more than likely that the now-deserted settlement at Thorns itself was at its core. If we accept this at face value, the Abbey's people based here would have laid out clear physical bounds to their property – or consolidated whatever the Abbey had purchased or been granted in perpetuity. These bounds would have consisted of an all-encompassing ditch and bank, loose material from the ditch being cast up to create the bank alongside. Given that this network was laid out at least eight centuries ago the degree of survival of individual banks and ditches is impressive, strongly suggesting that they had been dug and raised with care, and that the height of the banks and the depth of the ditches today are less than when first created. Gravity, the passage of time and a dominantly wet climate have all taken their toll. These external boundaries would have been prominent landscape features, inescapable statements of monastic possession within.

It is possible that the overall extent of the estate increased over time, with new acquisitions being brought into productive use and duly enclosed by further lengths of ditches and banks. In this vein it is possible that the three ditch and bank features that run north-south along the western wall of Thorns (Cow) Close – namely nos. 18, 25 and 21 – formed an early eastern boundary to the Thorns estate. They now form a discontinuous boundary from the settlement to the southern boundary at Wife Park Spring, with breaks where the historical Thorns to Nether Lodge road crossed from one side of the boundary to the other, and where

construction of Back Hools Barn and its fold yard breached the boundary. There is also a short break in the bank where Feature no. 21 turns through a curving right-angle at Wife Park Spring. Similarly, between the settlement and Gayle Beck, Features no. 1d and 3 form an almost continuous line, again dividing the older enclosures in Thorns from Thorns (Cow) Close.

All five of these banks are substantial structures: Feature no.1d has a combined ditch and bank width of almost 5m; for the others it proved impossible to obtain accurate measurements for either ditch or bank width, but all have combined estimated widths exceeding 5-6m, though Feature no. 3 was rather narrower. If the hypothesis has any validity, the assumption must be that the Thorns estate initially excluded Thorns (Cow) Close – as indeed it does nowadays – and that this extra land was taken in at some later juncture.

The characteristics of Feature no. 29 also hint at its once having been the boundary between Thorns (Cow) Close and Cam End before it was extended eastwards to the line of the present dry-stone wall and Feature no. 30. These two have their southern terminal point very close to each other and for their entire length they broadly describe a parallel course, with each being broken by an extensive area of boggy ground. Both have their northern end point a few metres short of Gayle Beck. Feature no. 29 is massive by any standards, with a combined ditch-bank width of 6.3m and, in parts, having a bank on both sides of the ditch which is not seen in any other features at Thorns. If it was coeval with Feature no. 30, or from a later date, the question would immediately arise as to why no. 29 was built on such a grand scale. Creating such a narrow parcel of ground between the two boundaries simply defies logic: no. 29 has to pre date no. 30.

Feature no. 29 hides another enigmatic secret. At the point where the ditch and bank reach the foot of the slope at the edge of the boggy area through which Cove Sike flows, the bank bifurcates to form an open-ended rectangular enclosure 20m on its north-south axis by 5.4-6m east-west (see Figure 8.12). No convincing explanation for its function has been agreed upon.

There are no ambiguities with Feature no. 30: this was beyond doubt the final agreed boundary between Thorns (Cow) Close stinted pasture and Cam End (originally Cam Side) stinted pasture.¹³ In turn the bank and ditch were replaced by a dry-stone wall connecting Gayle Beck and Wife Park Spring, which was (counter-intuitively) mainly erected within the ditch. This ditch and bank feature is sinuous throughout and, where they have escaped the ravages of time, both are broad, the ditch is deeper than the average and the bank is one of the highest.

On the western side of the Thorns estate the enclosures now called Holme and Nell Holme, alongside the Ribble, were historically part of the Gauber farm holding rather than Thorns and, as early modern land ownership patterns tended to mirror what came before, it is probable that all of Gauber was a separate land holding during the monastic era, even though logic might dictate that the river was an obvious physical boundary. Assuming this pattern applied here, there ought to be obvious evidence on the ground of a physical but man-made boundary between the two properties. In parts there is indeed such evidence, in the form of Feature no. 9 at the northern end of the boundary and no. 28 at the southern, but there is also a long section in between with no obvious sign of either a ditch or a bank. Of

¹³ See Chapter 13 for further detail.

the two, no. 28 is the more impressive structure with a combined width of nearly 5m and an above-average combined height and depth.

Internal 'field' boundaries

Excluding Thorns (Cow) Close, the Thorns estate seems to have been divided up into a series of large enclosures by ditches and banks, and it is possible to tentatively identify four or possibly five such parcels. In each case the suggested enclosure features stand out more prominently in the fieldscape than the internal sub-dividing features.

Between the settlement and Gayle Beck is an area (A on Figure 13.2), now named on OS mapping as Capnut Pasture, surrounded on three sides by ditch and bank features – nos. 1d, 3 and 4. Nos. 1d and 4 are substantial in every dimension; no. 3 has been eroded and infilled over time so is less prominent. Gayle Beck forms the northern boundary. This enclosure encompasses c. 9 acres (3.5ha), and was sub-divided by lesser ditch and bank features, specifically nos. 1a, b and c and 2. The east-west Feature no. 1b does not join the north-south Feature no. 4 though shakehole subsidence may have removed all traces; similarly, east-west Feature no. 2 does not meet no. 4 but here there is no ground evidence of subsidence. No. 4 also has a short tail whose end point is now impossible to explain.

Between the settlement and the boundary with Holme and Nell Holme is a further discrete enclosure (B on Figure 13.2), bounded by Feature nos. 5, 11 and external boundary no. 9. Both no. 5 and no. 11 are substantial landscape features, the former having a ditch width of over 3m, the latter a combined width of over 6m. This large enclosure is over 11 acres (c. 4.5ha) in extent, and it was sub-divided into four smaller parcels of ground by a lesser ditch and bank feature (no. 6) and by two low banks which are not shadowed by a ditch (nos. 7 and 8, and possibly by no. 26).

Ditch and bank no. 5 is seamlessly continued by no. 10 which is very prominent for its entire length (combined width 7.8m) but, again defying explanation, it terminates in the middle of a flat (former) meadow just south of the settlement: possibly it was later ploughed out. If it originally extended further south-eastwards, it may have enclosed the area between Gayle Beck/Capnut and the settlement measuring c. 20 acres (8ha), a substantial area of high-quality meadow land (C on Figure 13.2). There are no apparent internal banked or ditched sub-divisions here.

The east side of High Flat Hill and the land to its east (D on Figure 13.2) were bounded by prominent ditches and banks, namely Feature nos. 10, 11, 12, 13 and 15, and on the east side by no. 18, taking in c. 26 acres (c. 10.5ha). We have already noted the substantial size of nos. 10 and 11; nos. 12, 13 and 15, which are essentially the same continuous linear feature, are also impressive in scale where they have survived well. No. 12 has a combined width of 3.6m, no. 13 of 2.9m and no. 15 of 5.6m. When viewed from afar, all three stand out clearly in the landscape. This assumed enclosure is in excess of 22 acres (9ha) and it was sub-divided into several smaller parcels of ground by smaller-scale ditch and bank features – nos. 14, 16 and 17. Alternatively, if nos. 10 and 17 were once joined, the area between nos. 17, 18 and the settlement would have belonged to Area C rather than D.

Finally, the remaining ground along the southern periphery of the Thorns estate (E on Figure 13.2) is bounded by the Ribble and Wife Park Spring to the south, Feature nos. 12, 13 and

15 to the north, no. 28 to the west and no. 25 to the east. This does not seem to have been sub-divided, even though it extends over 30 acres (12.6ha).

Drainage ditches

Six of the linear features that were included in the survey do not share the characteristics of those already discussed. Nos. 20, 22, 23, 24 and 27 and much of 19 are not well defined on the ground and in places are imperceptible; the ditches are in general very narrow, very shallow, straight rather than sinuous, and lack obvious banks. In addition, nos. 19, 22, 23 and 24 follow the contours and clearly feed into no. 20 which at its lower, southern end, has been cut through external boundary bank no. 21 to feed into Wife Park Spring. These five were self-evidently dug – it is impossible to know when – to drain groundwater away from Back Hools Meadow. Feature no. 27 is less obviously a drainage cut, and this field was not a meadow, but it has no trace of a bank and is very small in cross-section so the balance of probability is that it was not a field boundary. Figs. 8.16 and 8.17 depict all surveyed ditch and bank features excluding those deemed to be drainage cuts.

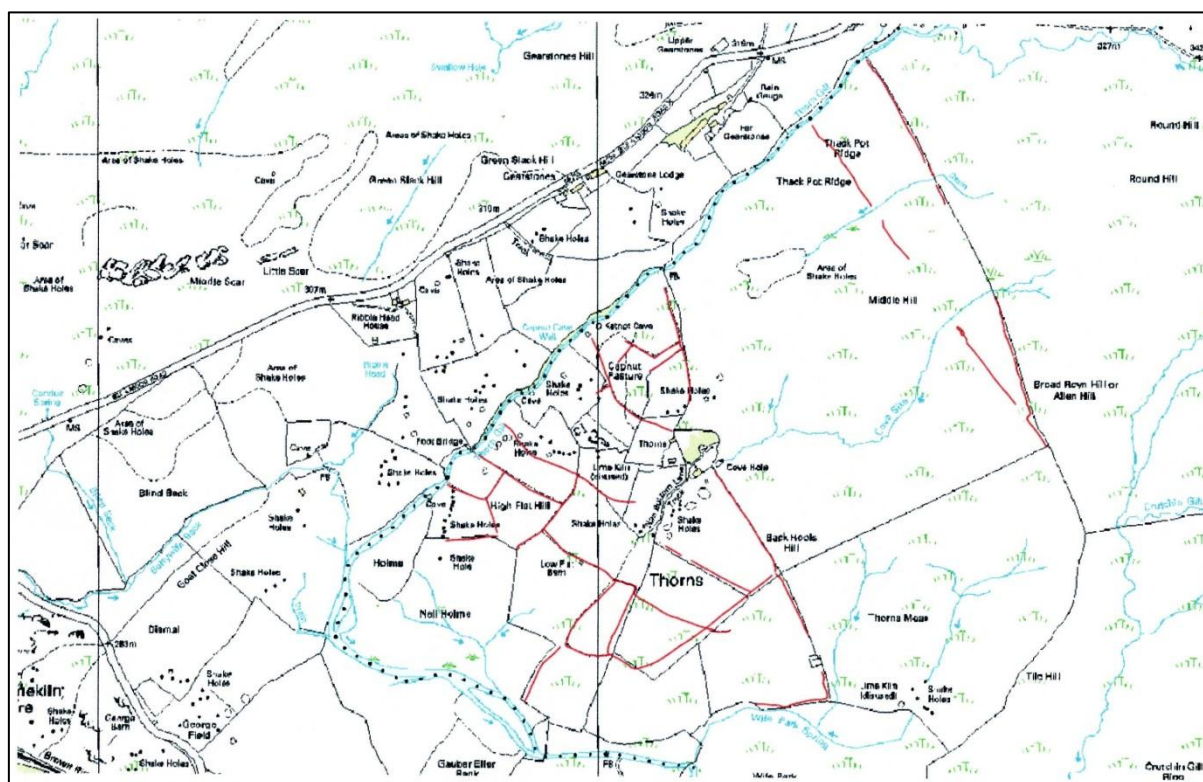


Fig. 8.16 Internal and external boundary ditch and bank features plotted by GPS surveying, at a scale of 1:10,000, by SWAAG (© Crown copyright and database rights 2014. Ordnance Survey licence no. 100023740)

5. Conclusion

Inevitably, perhaps, the network of ditches and banks raises a number of issues. There can be no doubt that Thorns estate's early owners and occupants were intent on laying out a patchwork of what we would now call fields to facilitate the most effective system of seasonal pasture and livestock management. They were also keen to mark the full extent of their estate with permanent physical barriers where natural bounds did not exist. The Ribble, and to a lesser extent Wife Park Syke, in the south and Gayle Beck in the north and west, did

form natural boundaries. In the east, and in the north-west where Thorns met Holme and Nell Holme, the solution was to dig ditches using the soil and stone to create adjacent banks.



*Fig. 8.17 Internal and external boundary ditch and bank features surveyed by GPS, by SWAAG, and plotted on a Microsoft Bing Aerial base
(© Microsoft product screen shot reprinted with permission from the Microsoft Corporation)*

English law asserts that whereas a stone wall is a definitively defined boundary line separating one landowner's property from another's, that is not the case where a boundary is marked by a ditch and bank. A landowner who threw up a bank was legally justified in claiming as his a strip along the outer edge of the bank up to 3 feet (920mm) wide. The Land Registry maintains that if a ditch is dug on the outer side of the bank the legal boundary is deemed to be the outer side of the ditch, that is, the side furthest from the bank. Thus, if a landowner dug a ditch just inside his property and threw up the soil to make a bank on his side of the existing boundary, and then possibly set a living or dead hedge on the bank top, the outer side of the ditch would remain the legal boundary.

Relating this to the ditch and bank features at Thorns classified as external property boundaries, it should follow that in each case the ditch lies outside the bank. For nos. 1d, 9, 18, 28 and 39 this is indeed the case; it does not apply to no. 21 but it may be that Wife Park Syke marked the legal boundary rather than the ditch or bank. Regarding internal boundaries, if the intention was to keep domestic livestock and non-domestic herbivores out of a given meadow or cropland, or to rest pasture, the bank would have been formed on the inner side of the ditch. Animals could not easily negotiate first a deep and probably wet or muddy ditch and then climb the comparatively high slope of the bank. When applied to Thorns the correlation is not clearcut though the ditch-bank layout of Feature nos. 3, 4, 5, 10-13, 15 and 18 suggests that the enclosures labelled C and D on Figure 13.2 were designed to be able to keep stock out, when required. Moreover, most of area C and the northern half of area D were managed as hay meadows until within living memory (pers. comm. Reg Dobson) thereby reinforcing this contention.

As we have seen, the total length of surviving non-drainage ditches is 4865m. As the original depth of each ditch and the height of each bank are unknown quantities, it is not now

possible to accurately calculate how much material was dug and cast up. Taking the average ditch width for all non-drainage ditches, however, and rounding it down to 2m, and taking average ditch depth, also rounded down to 500mm, one can assume that 1m³ of material was dug out of the ditch and thrown aside to make the bank for every one linear metre created. Today, resorting to mechanical means, the task of digging and laying the entire 4865m³ would not be too onerous; in monastic days, when only hand tools were available – and with the dubious benefit of hindsight – the prospect is truly breathtaking. The sheer back-breaking physical effort involved, the number of person-days tallied, the manpower costs (or perhaps cost-equivalents) accrued, and the vision enabling such a major task to be perceived as both achievable and desirable, almost defy understanding today.

Several of the features surveyed were eventually discounted because they were drainage cuts. None of the others can be seen in that way. Firstly, the considerable width and depth of most of the ditches and the width and height of most of the banks rule it out. Secondly, when the network is viewed on a map or satellite image their spatial arrangement is quite different from that of a system of drainage ditches which are normally associated with parallel and rectilinear lines, often in a herring-bone fashion, eventually feeding down one slope into a natural watercourse. In no circumstances would a drainage cut describe the gentle curves of several of the boundary features at Thorns. Nor would one ditch run down one slope and/or up and over another as do nos. 10, 13, 15, 29 and 30.

Furthermore, at some point a decision was made to rearrange the fieldscape at Thorns by replacing the ditch and bank boundaries with dry-stone walls. Some of the walls were laid out on a bank or in a ditch (such as nos. 6, 18 or 30) or closely followed the line of the ditch/bank (such as nos. 1d and 3), while others loosely followed the earlier line (such as nos. 12 and 14). On the other hand, some of the walls ignored the earlier boundaries either in part or in totality (prime examples here would be 10, 13 and 15): we can but wonder and speculate about the reasoning behind these realignments.

It will never be known when the ditch and bank network was laid out or if the entire network was conceived as one master plan. It was hypothesised earlier that the eastern boundary did progressively more eastwards but we cannot even begin to speculate over what period of time this happened. Similarly, it would be pointless trying to pin down exactly when walls replaced banks and ditches or – again – if this transformation was a gradual process or a single major shift of emphasis. Even archaeological excavation might well prove fruitless as it is extremely unlikely that any secure dating evidence would be found. However, the close spatial correlation between the ditch-bank network and the stone walls has to rule out any possibility that the former have prehistoric origins.

A clue to the antiquity of the ditch and bank landscape is the supreme effort that went into designing and creating it. After the dissolution of Furness Abbey in 1537 the estate passed through a series of absentee landowners for centuries and was leased out at any one time to several tenants and sub-tenants. It is inconceivable that such landowners would have had any interest in making such a huge investment in what to them was marginal and peripheral; and it is equally unlikely that those working the land would have seen any benefit in coming together to undertake the task – setting aside that dry-stone walls were being built before Dissolution. In the earlier period of monastic ownership, on the other hand, matters were markedly different. Furness had the requisite financial and manpower resources and, in

common with the majority of Cistercian foundations, they were driven by the desire to improve their property and to maximise income accruing from its effective management.

We can but speculate how ditch and bank features were made stock-proof. A relatively low bank and shallow ditch would probably have deterred cattle but not sheep. Even the obvious and more massive external boundaries (especially nos. 28 and 30) would not have kept sheep in or other owners' sheep or predators out. Internal 'field' boundaries were laid out with a dual purpose: to manage grazing through the year by rotating livestock from one to another to give heavily grazed pastures chance to recover and re-grow, and to keep stock out of hay meadows or cropland during the summer months. They would all have required some form of reinforcement on the bank top. This may have been a live hedgerow most likely formed of quick-growing hawthorn (*Crataegus* sp., also known as quickthorn and whitethorn), blackthorn (*Prunus spinosa*), holly (*Ilex* sp.) or hazel (*Corylus avellana*). Live hedgerows would have been managed by the process of hedge laying, a practice which has uncertain origins but is probably at least early medieval. With regular light trimming an interval of fifty years between laying events is adequate to keep a hedge in good stock-proof order.

Equally, an effective barrier could have been achieved with what is called a 'dead hedge' formed by weaving horizontal brushwood and small cut or fallen branches and deadwood around upright poles or stakes. A dead hedge is quick to make and effective in deterring stock and easily maintained by adding more wood when older lengths have rotted down. Obviously, to create and keep up a dead hedge required ample local supplies of suitable smallwood. One can but wonder here if Thorns came to be known by that name because thorn bushes grew there prolifically or alternatively because the network of banks topped with planted thorny species gave this landscape a distinctive look.

FIELD WALLS IN THE THORNS LANDSCAPE

Patricia Carroll and Philip Carroll



Fig. 9.1 Wall no. 28 at Thorns (Pat Carroll)

Contents

1. Thorns walls – an analysis based on 2016 fieldwork
2. Wall chronology
3. Wall furniture
4. Wall junctions
5. Dating analysis summary
6. Wall profiles
7. Process not product: a review
8. Team members
9. Appendices

1. Thorns walls – an analysis based on 2016 fieldwork

Patricia Carroll

Thirty-nine walls were examined, the longest wall measuring 1590m and the shortest just 13m. A survey form was completed for every wall and profiles were taken of each section providing the wall was intact and had topstones in place. All wall features were photographed from both sides and marked on a plan of the wall together with any relevant notes. A wall which changed character along its length was divided into lettered sections and a survey form and profile were completed for each section.

All walls which appeared on the First Edition OS map, as well as those still visible, were recorded although two now exist only as earth banks (Wall nos. 13 and 37). Two walls

remain as footings with no sections of standing wall (Wall nos. 14 and 17, Fig. 9.2) and Wall no. 26 is mainly footings but has a few sections of ruined wall. Three walls are in a totally ruined state from end to end (Wall nos. 4, 12 and 32, Fig. 9.3).



Fig. 9.2 Wall no. 14, footings only with no standing wall (Pat Carroll)



Fig. 9.3 Wall no. 12, a totally ruined wall (Phil Carroll)

Fourteen walls remain intact for the whole length (Wall nos. 1, 2, 5, 6, 15, 19, 22, 23, 24, 25, 27, 28, 29 and 38). It is significant that with the exception of Wall no. 15, these all either surround the settlement or bound the regular mainly straight-sided fields to the east of it. The rest of the walls have both standing and ruined sections.

A difficulty with recording wall heights lies in writing the average height on the survey form when walls are not on level ground, thus differing from the overall height on the profile. Therefore in discussing wall heights the overall height from the profile has been used to provide consistency. Whilst approximately half the walls are around 1.5m high, only Wall no. 29c is significantly taller at 1.95m, and Wall nos. 3b, 9, 10, 15, 16, 18 and 36 are all only around 1m suggesting these were built to confine cattle not sheep.

Wall bases of a metre or more are one of the possible indicators of a pre-1700 wall. Seven sections of wall came into this category, namely nos. 3a, 3b, 7, 15, 22c, 24b and 34b. Whilst Wall nos. 3 and 15 do have a majority of their indicators suggesting on older wall, the scores for the others are equivocal.

Features of wall furniture noted were seventeen sheep creeps (Fig. 9.4), one cattle creep (Fig. 9.5) and fourteen smoots (Fig. 9.6) of which nine appeared to be for water courses. In addition to these were a number of engineered gaps in walls where a stream or wet ditch crossed. There were six blocked-up gateways, half of which were narrow ones. Of the four stiles recorded there was one ladder stile and three stone step stiles. There were gate stoops of various ages mainly of stone, with one very weathered limestone stoop on Wall no. 34a (Fig. 9.7). Stoops formed from slabs of 'slate' were found on Wall nos. 19, 21, 23 and 29c (Fig. 9.8); significantly these all surround a single field.



Fig. 9.4 Wall no. 15, sheep creep (Phil Carroll)



Fig. 9.5 Wall no. 3, cattle creep (Phil Carroll)



Fig. 9.6 Wall no. 1, rabbit smoot (Pat Carroll)



Fig. 9.7 Wall no. 34, weathered limestone gate stoop (Pat Carroll)



Fig. 9.8 Wall no. 22, 'slate' gate stoop (Pat Carroll)

Wall nos. 10, 11 and 15 incorporated earthfast boulders (Fig. 9.9); nos. 11 and 31 had sections built along rock outcrops; nos. 8, 12 and 31 used boulders within the fabric; and nos. 8, 11, 12 and 31 contained orthostats or recumbent stones, all suggestive of older walls.



Fig. 9.9 Wall no. 10, incorporating an earthfast boulder (Pat Carroll)

In order to attempt to work out a possible chronology for the walls the following criteria were used. Pre-1700 walls should have flat top stones, minimal batter, stones not graded in size from bottom to top, the majority of stones rounded or sub-rounded, stones not coursed, few through-stones, top width >600mm, height >1.7m, the presence of orthostats or recumbent blocks, curved not angular corners, a base width of 1m or more, and a sinuous or zigzag shape.

Post-1700 walls should have angled top stones, be 1.5-1.6m high, have a base width twice the top, be graded from the bottom up, be coursed, have a majority of angular stones, have one dominant stone type, a top width of 300mm, and be straight in plan.

Using the above criteria, all the recorded markers for Wall nos. 11, 16 and 36 came out as pre-1700 (Fig. 9.10) and all those for Wall nos. 19, 28b, 28c and 29b came out as post-1700. The remaining walls had markers for both but divided into roughly a third with predominantly pre-1700 results, a third with post-1700 results, and the remaining third having equivocal results (see Section 5). This can only be a rough guide and other factors need to be taken into consideration. It should also be borne in mind that if a whole length of wall has been rebuilt this can then appear 'modern' even though it follows the course of an old wall.



Fig. 9.10 Wall no. 11, displaying the characteristics of older walls (Pat Carroll)

In conversation with Reg Dobson, farmer, we learned that he and his father had built Wall no. 29b, the section between the narrow gate at the junction with Wall no. 24 and the bank barn stable, about sixty years ago, making it mid twentieth century.

Since both the bank barn and Back Hools Barn were built in the mid nineteenth century the associated fold yard walls (nos. 38 and 39) should date from then or even later. The wallhead for Wall no. 39 appears fossilised in Wall no. 24 but this could have more to do with the fact that the gateway has been moved from one side of the wall to the other and that both are now blocked than to the chronology of the walls. Wall no. 24 changes alignment at Back Hools Barn but it is probable that this was for a previous structure rather than the wall being contemporary with the present barn (see below).

Documentary evidence confirms that Wall no. 33 was built in 1802-03 to divide a large stunted pasture indicating that Wall nos. 24 and 34 were already in existence as it abuts them both. Wall no. 23 is also a later field division as it abuts both Wall no. 19 and 21. Wall no. 34 appears to be the boundary of the Thorns estate but at what point it replaced the associated bank and ditch is not clear.¹⁴ A long section in the middle no longer exists and there may have been much repair so the markers are equivocal, although the very weathered limestone stoop and the wide dumpy profile similar to other early walls could hint at a pre-1700 date.

The straight-sided and angular shape of the field enclosed by Wall nos. 19, 21 and 24 and divided by Wall no. 23 would indicate a post-1700 date and all the walls in question fit into

¹⁴ See Chapter 13.6 for further discussion of Wall nos. 33 and 34.

this category. Wall nos. 19 and 21 tied in at the junction therefore are probably contemporary but predated by Wall no. 24.

Wall no. 22 changes alignment at the earthwork remains of Hipping House and therefore was built when the building was still standing. However, the wall to the south of the site has more markers of an older wall and a totally different profile from the two northern sections, which judging by the profiles are probably the same. There is evidence of building masonry remaining in the wall fabric at the Hipping House site.

Wall no. 9 changes alignment at High Flat Barn but this barn is of early date so that does not help with the chronology of the wall. This wall ends with an obvious straight joint at the tumbled corner of nos. 10 and 31, both of which appear old walls so the joint on Wall no. 9 which has the appearance of a wallhead is anomalous.

Around the settlement Wall nos. 5, 6b, 27b, 28, 29b and 38 all have a convincing majority of markers for a post-1700 wall. Unexpectedly, Wall nos. 2, 6a, 27 and 29a all have a majority of markers for an older wall although this could also be an anomaly.

Wall nos. 12, 13, 14, 32 and parts of 15 and 17 appear to mirror the pattern of ditch and banks and may be replacements for older land divisions. Wall no. 15 does have the attributes of a pre-1700 wall but the rest is too ruinous to give much indication.

Whether it be a convincing majority of pre-1700 markers or simply the presence of features that do not occur in later walls, such as being balanced precariously over the top of earthfast boulders, Wall nos. 3, 8, 10, 11, 15, 16 and 36 all appear to predate 1700. All these walls are to the west of the settlement and form boundaries to irregularly-shaped fields.

On the basis that it follows the same zigzag pattern as Wall no. 11, Wall no. 18 could be seen as an early wall as could Wall no. 20 with a majority of early markers which, added to the possible early date for Wall no. 34 discussed previously, gives an almost complete site boundary of pre-1700 walls.

For a detailed record of the findings see the survey sheets, map and photographic index for each wall, all in the Project Archive. All judgements were subjective and in many cases where walls were tumbled determining how walls joined was challenging or even impossible, therefore anomalies are inevitable. Nevertheless a pattern of pre- and post-1700 walls has emerged, as have some indications of how the land was used, as detailed in Sections 2 – 6 below.

2. Wall chronology

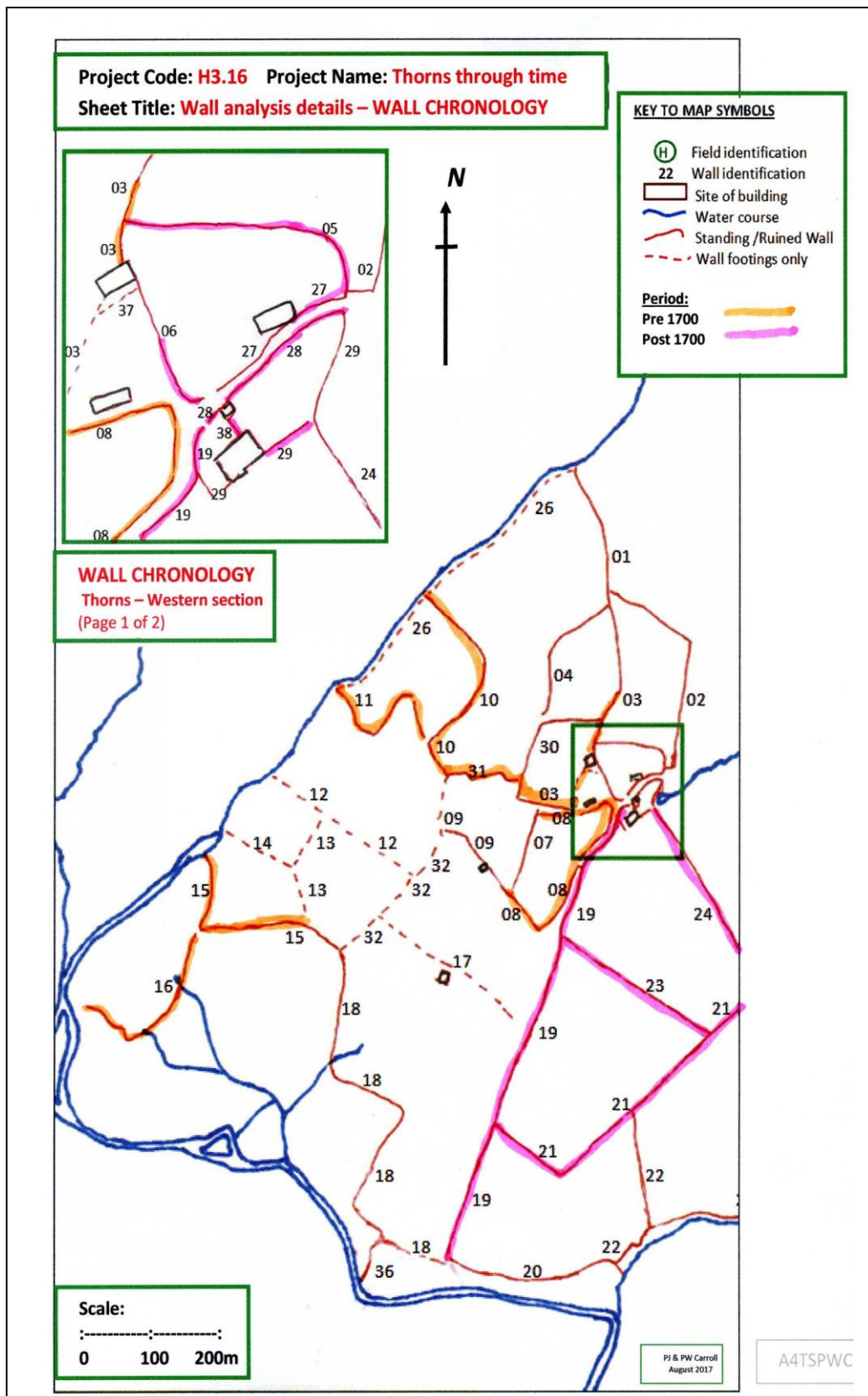


Fig. 9.11 Wall chronology, western section

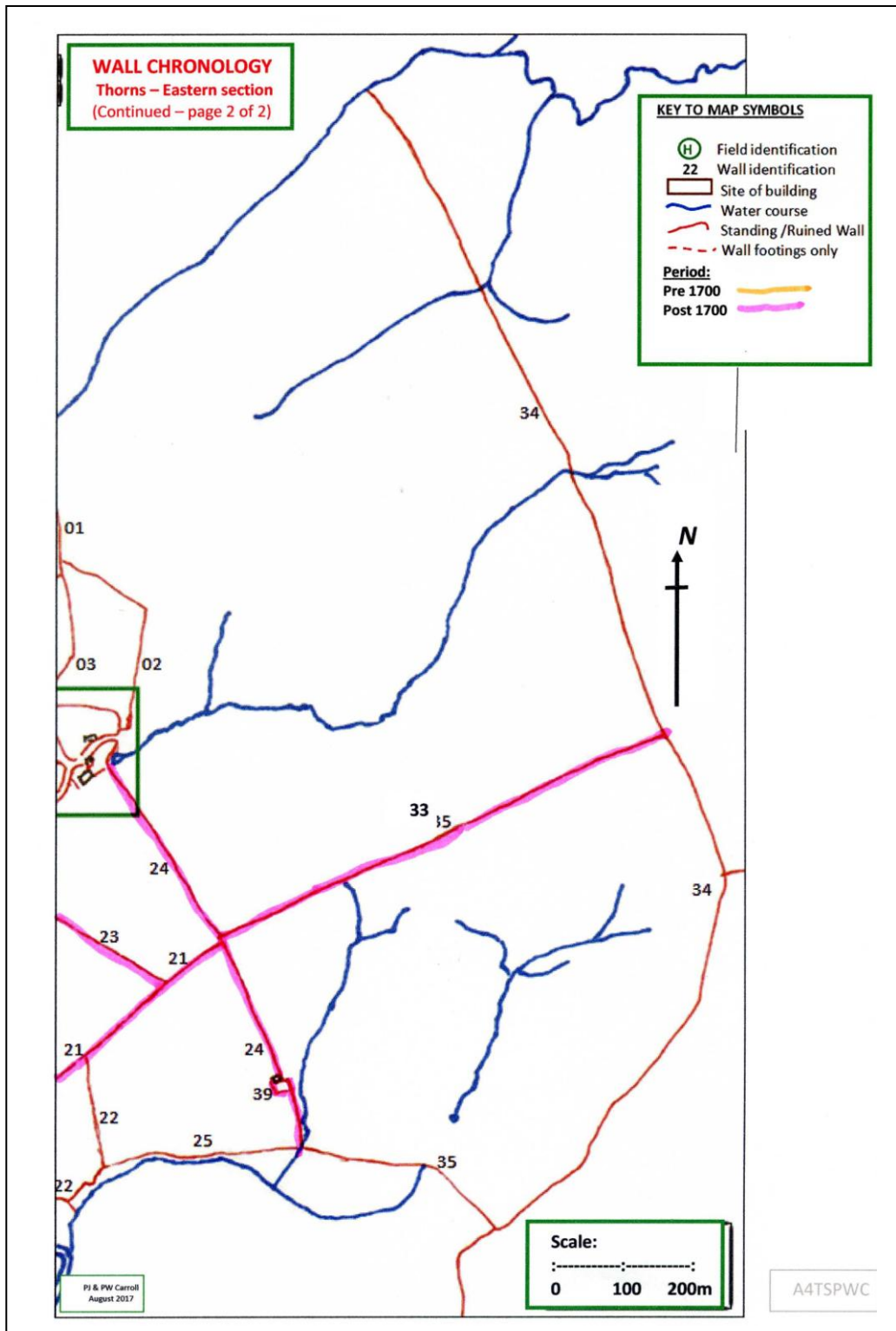


Fig. 9.12 Wall chronology, eastern section

3. Wall furniture

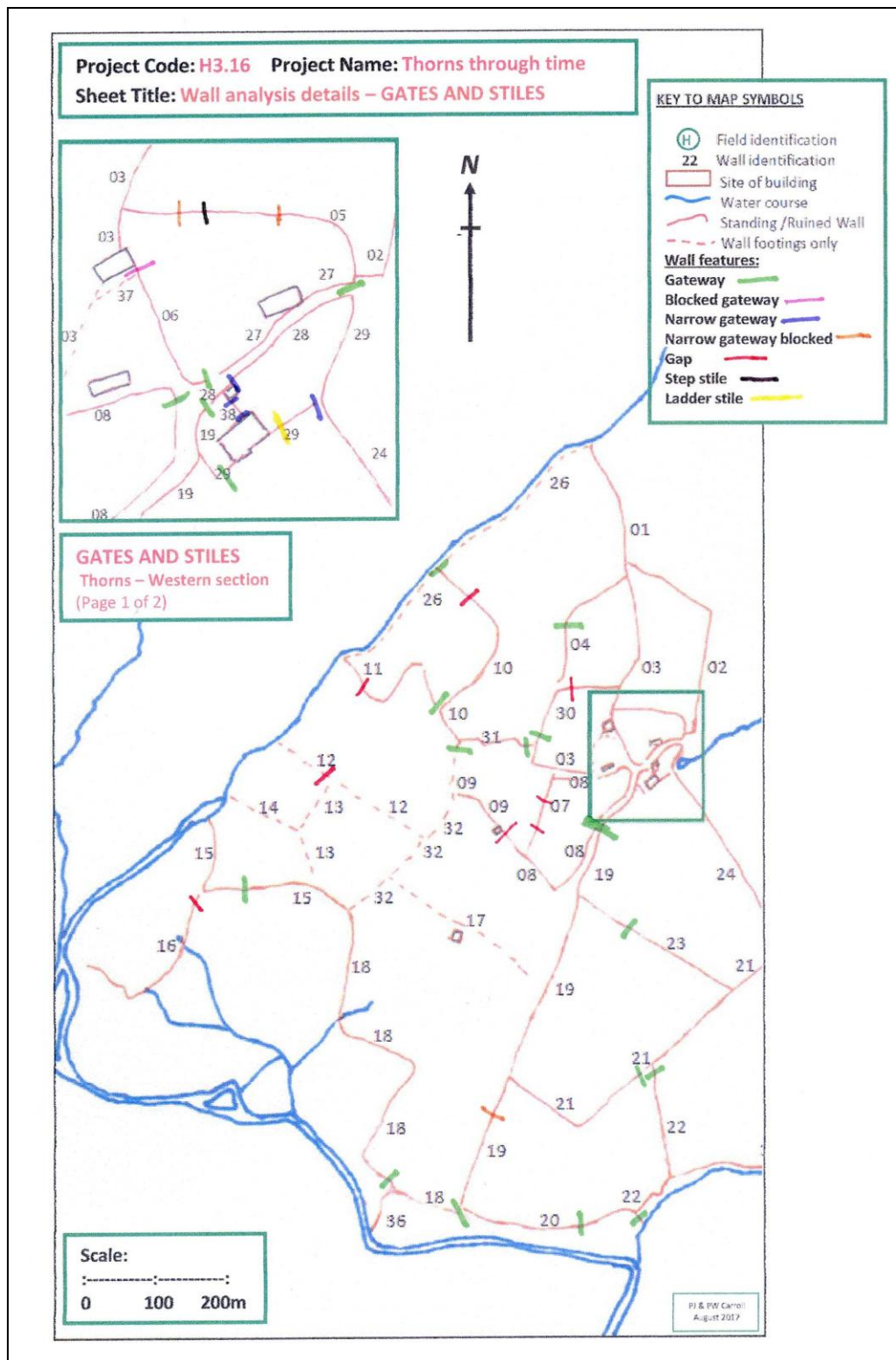


Fig. 9.13 Gates and stiles, western section

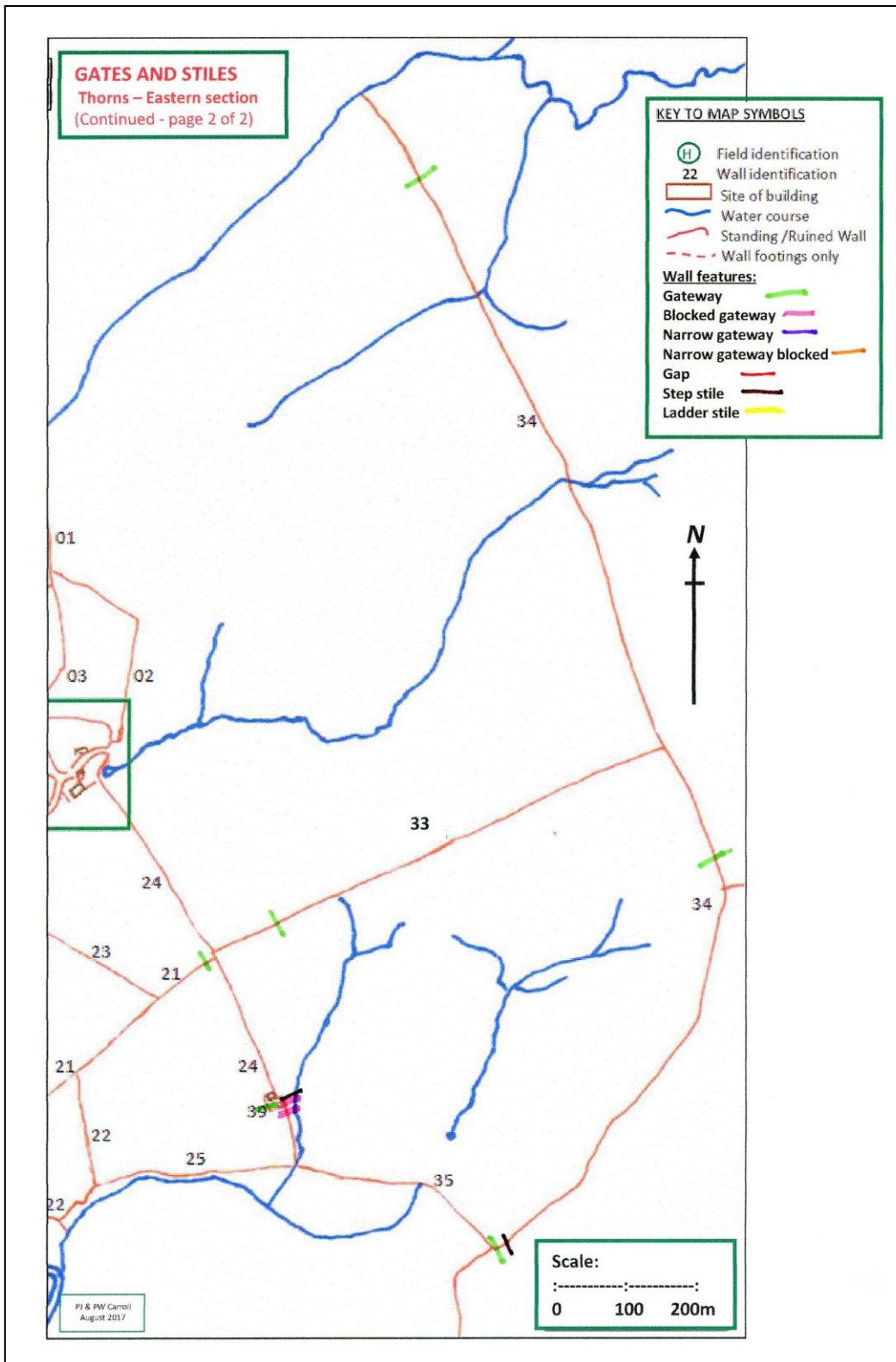


Fig. 9.14 Gates and stiles, eastern section

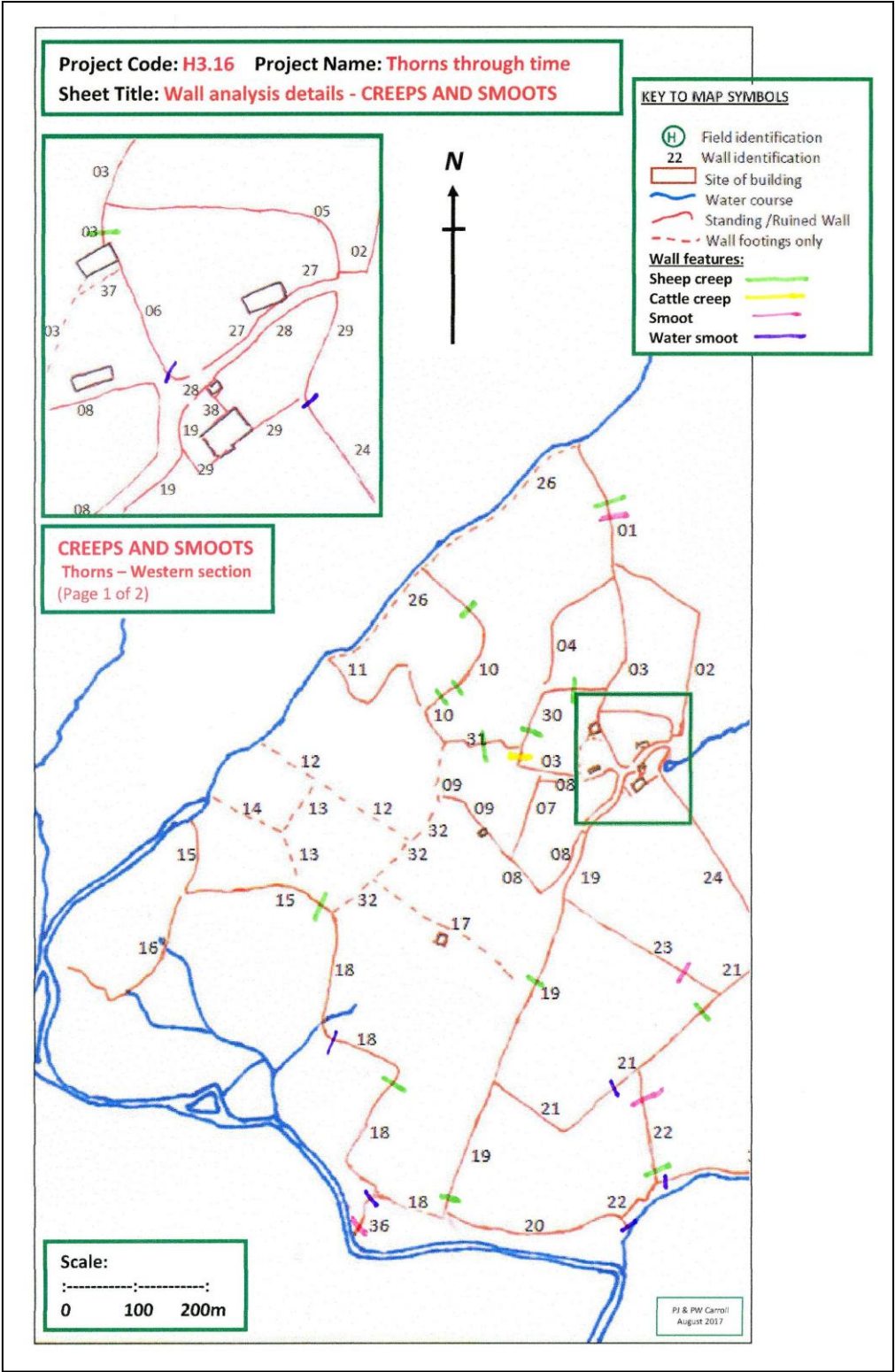


Fig. 9.15 Creeps and smoots, western section

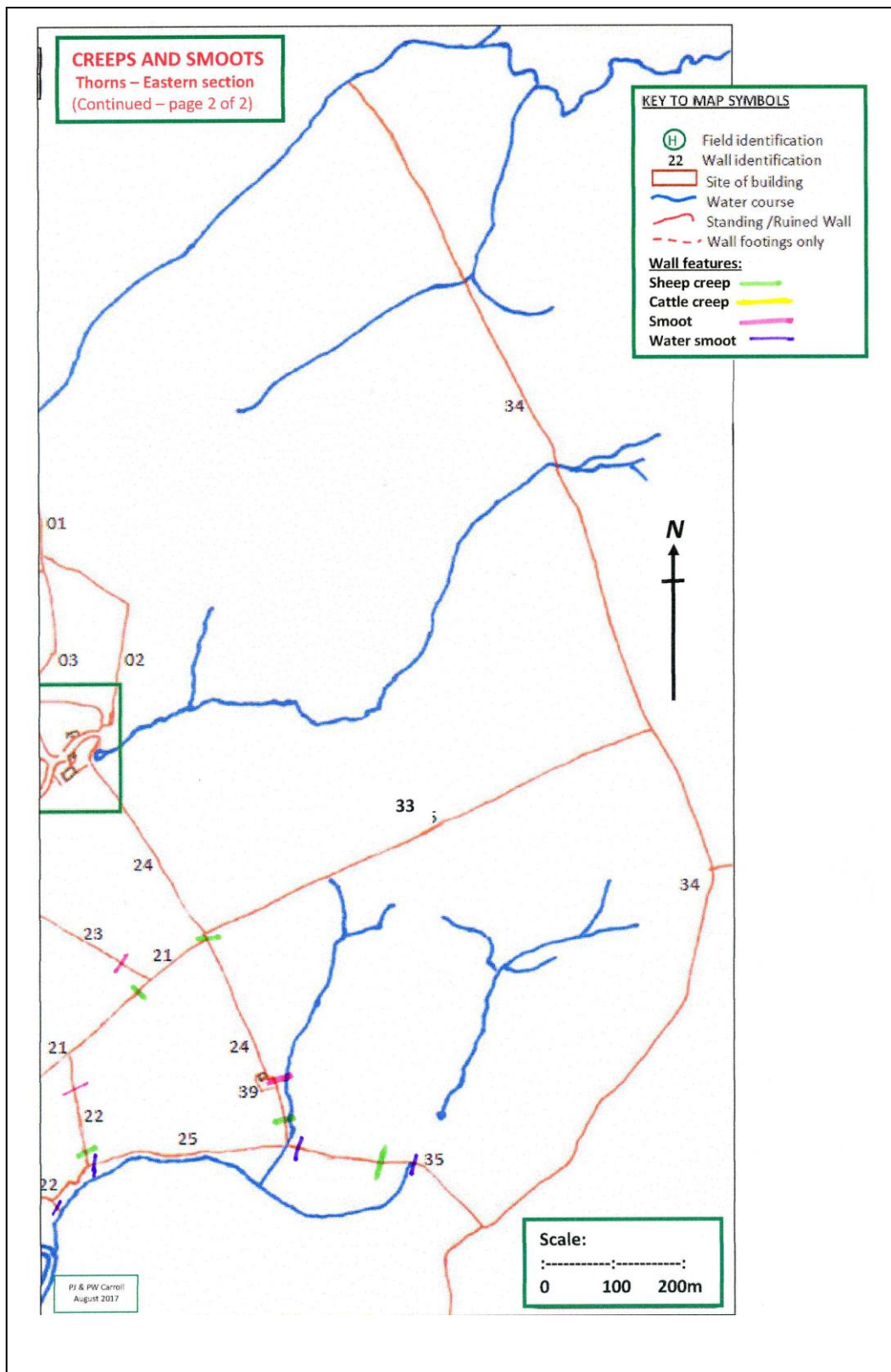


Fig. 9.16 Creeps and smoots, eastern section

4. Wall junctions

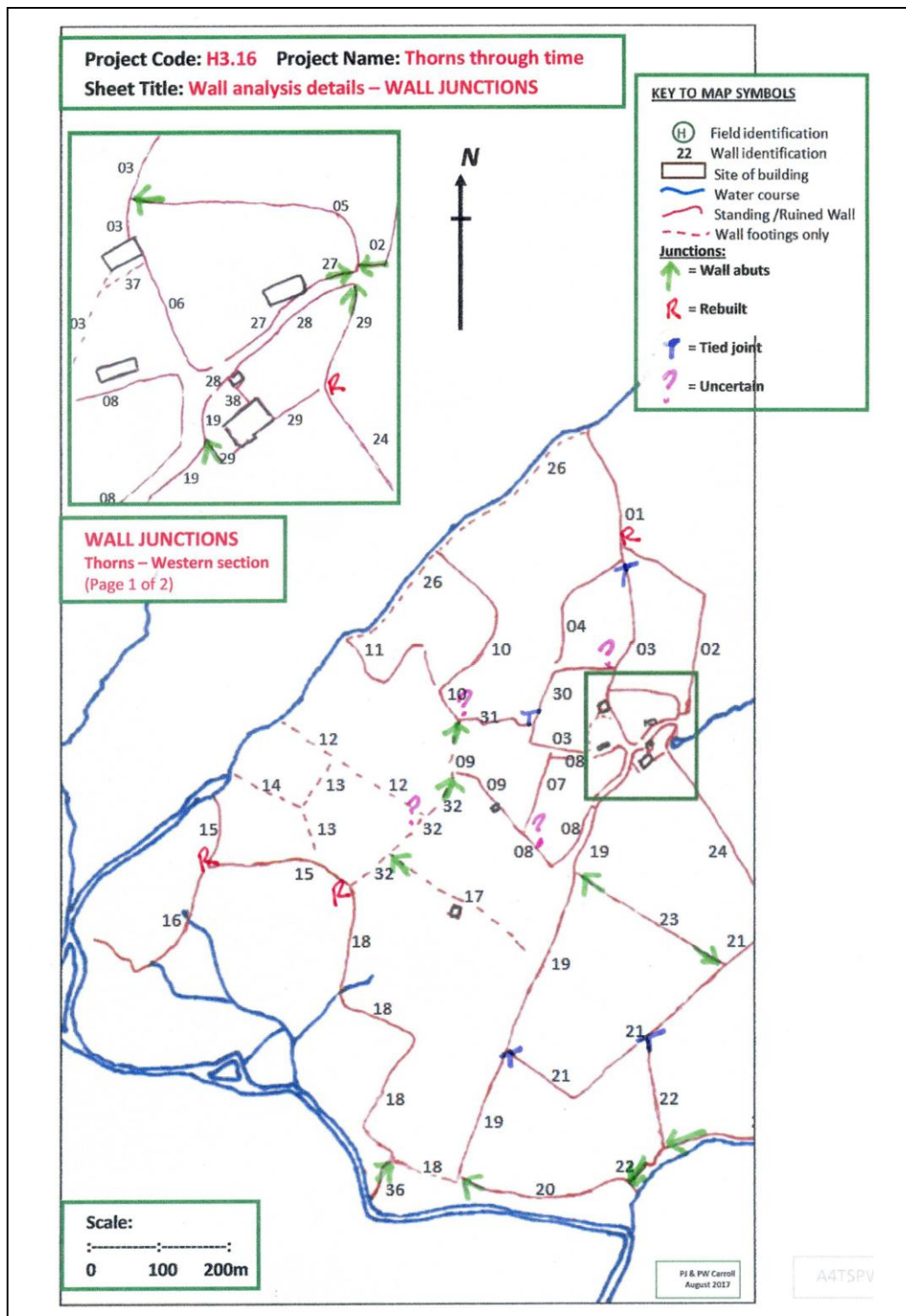


Fig. 9.17 Wall junctions, western section

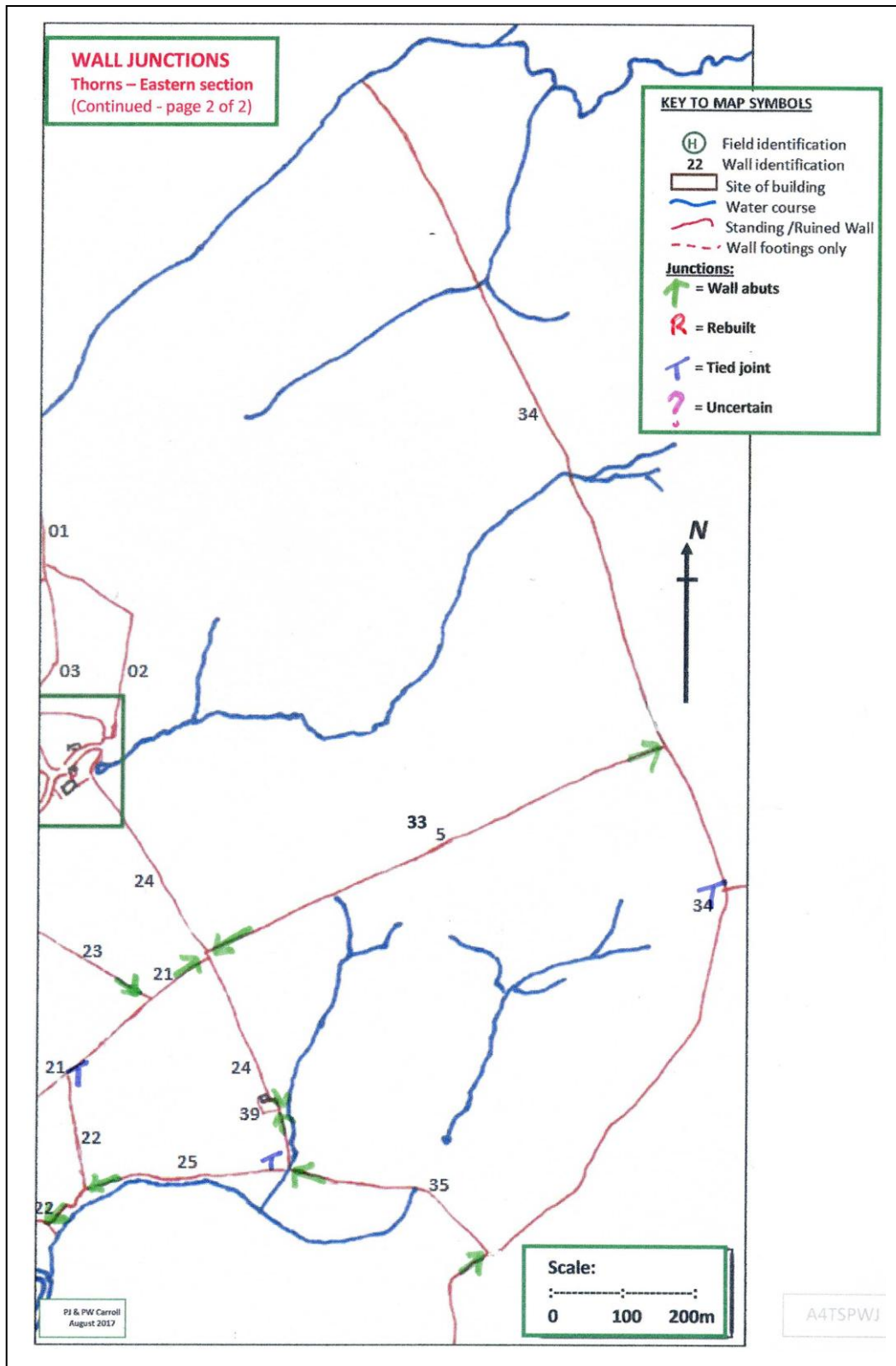


Fig. 9.18 Wall junctions, eastern section

5. Dating analysis summary

Table 9.1 Walls dating analysis sheet

Thorns - Dating Analysis Sheet - Pat Carroll August 2017

	1	2	3a	3b	3c	3d	3e	4	5	6a	6b	7	8a	8b	8c	9	10	11	12	13	14	15	16	17	18a	18b	19	20	
Early wall criteria (Pre 1700)																													
Flat topstones M = mixed	M					M	M																		M				
Minimal batter		✓	✓	✓	✓		✓			✓			✓	✓									✓		✓	✓			
Stones not graded	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓								✓							✓
Majority rounded/sub-rounded		✓	✓	✓	✓					✓				✓					✓				✓			✓			✓
Orthostats/recumbent blocks														✓					✓	✓									
Top width >600mm																					✓								
Few through stones	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓				✓						✓							✓
Tall >1.7m																													
Not coursed	✓	✓	✓	✓	✓	✓	✓			✓				✓	✓						✓		✓			✓			✓
Curvy or zig zag walls			✓	✓	✓			✓				✓		✓	✓						✓		✓		✓	✓			✓
Curved not angular corners		✓										✓		✓							✓		✓		✓				✓
Base width 1m or more			✓			✓						✓									✓								
Post 1700 wall criteria																													
1.5 - 1.6m high									✓																				
Base width twice the top	✓												✓																
Graded from bottom up									✓		✓		✓			✓						✓			✓	✓			✓
Coursed									✓																				
Majority angular stones	✓		✓	✓	✓	✓	✓	✓				✓	✓			✓						✓		✓		✓			✓
One dominant stone type					✓	✓	✓					✓				✓					✓					✓			✓
Angled topstones M = mixed	M	✓					M		M	✓	✓	✓			✓	✓	✓					✓			M	✓	✓	✓	✓
Top width 300mm							✓		✓																✓	✓	✓	✓	✓
Wall straight not curvy	✓					✓	✓			✓			✓																
Other findings																				Bank									
Height 1 - 1.5m	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓				✓			✓	✓	✓	✓	✓
Top width 350 - 600mm	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓				✓			✓	✓	✓	✓	✓

Thorns - Dating Analysis Sheet - Pat Carroll August 2017

Early wall criteria (Pre 1700)	21	22a	22b	22c	23a	23b	24a	24b	25	26	27a	27b	28a	28b	28c	29a	29b	29c	30	31	32	33	34a	34b	35	36	37	38	39
Flat topstones																M				✓					✓				
Minimal batter						✓					✓														✓		M		✓
Stones not graded	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				✓			✓	✓				✓	✓				✓
Majority rounded/sub-rounded	✓											✓									✓		✓						
Orthostats/recumbent blocks																		✓											
Top width >600mm																													
Few through stones	✓	✓	✓	✓	✓						✓									✓			✓						
Tall >1.7m																		✓											
Not coursed	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓				✓	✓	✓	✓	✓	✓	✓			✓	
Curvy or zig zag walls	✓								✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓			✓	✓				
Curved not angular corners									✓		✓	✓			✓														
Base width 1m or more				✓																				✓					
Post 1700 wall criteria																													
1.5 - 1.6m high				✓								✓	✓	✓															
Base width twice the top				✓			✓	✓				✓	✓	✓						✓			✓	✓				✓	
Graded from bottom up		✓										✓	✓	✓	✓	✓	✓	✓				✓	✓	✓					✓
Coursed							✓	✓	✓			✓	✓	✓	✓	✓	✓	✓											
Majority angular stones	✓			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
One dominant stone type	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Angled top stones	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	M	✓	✓	✓	✓	✓	✓	✓	✓	M				✓
Top width 300mm	✓	✓			✓							✓																	
Straight not curvy	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓
Other findings																											Bank		
Height 1 - 1.5m	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
Top width 350 - 600mm		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
																													P2

6. Wall profiles

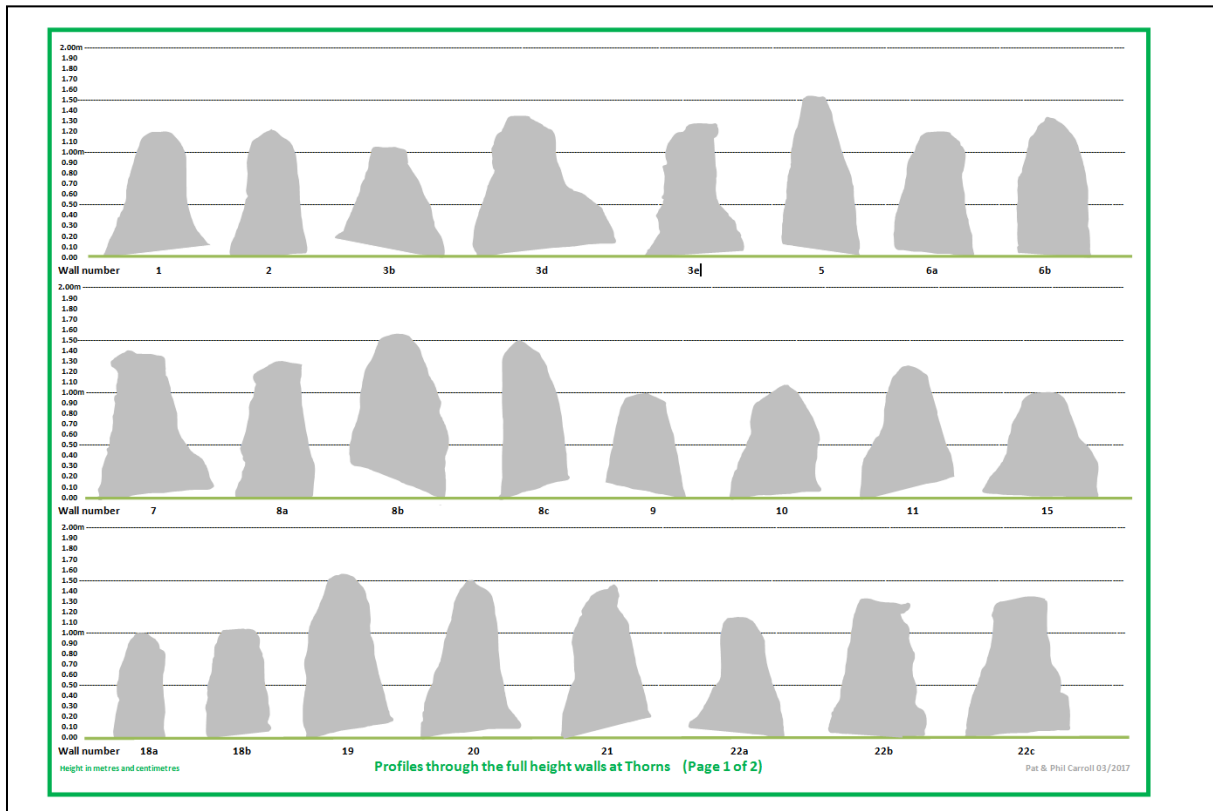


Fig. 9.19 Cross-profiles for Wall nos.1 - 22c

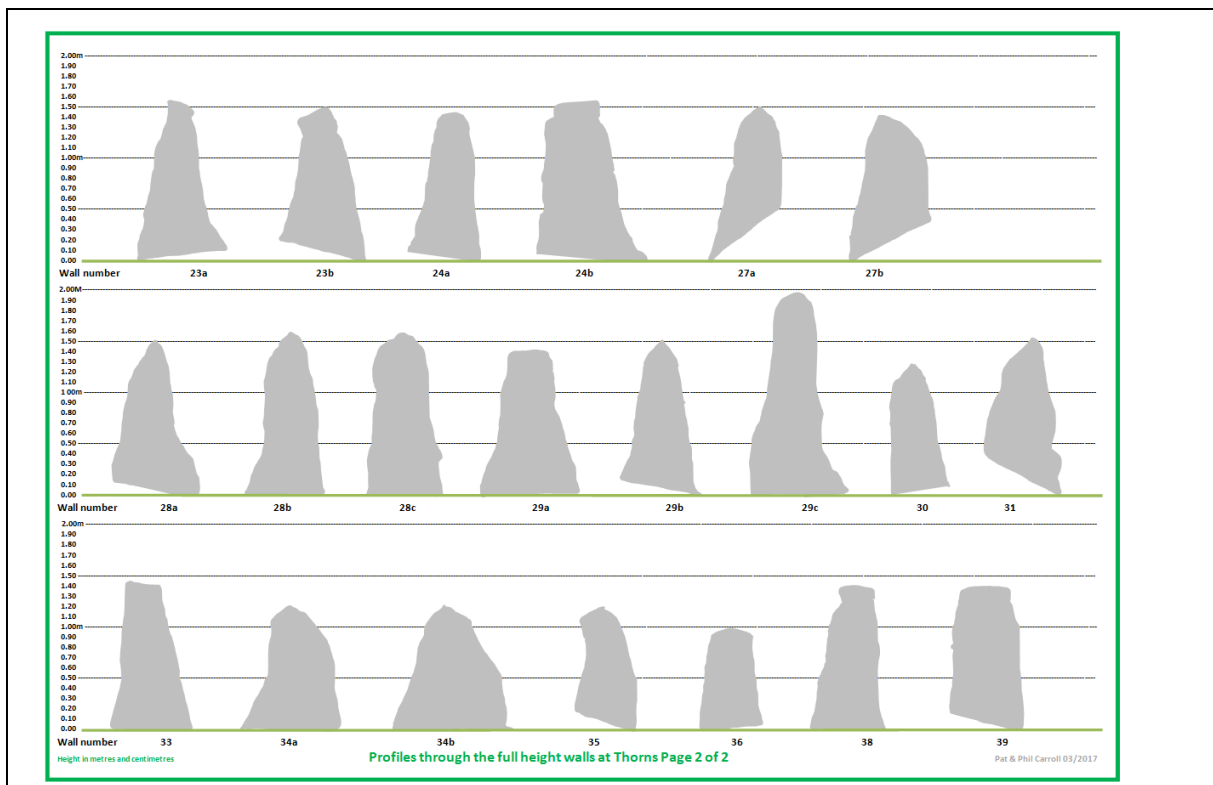


Fig. 9.20 Cross-profiles for Wall nos. 23a – 39

7. Process not product: a personal view of wall surveying at Thorns

Philip W Carroll

This section looks back at the interesting and challenging task of surveying, recording and producing wall profiles for the numerous walls at Thorns, and comments on the process of surveying rather than the final product.

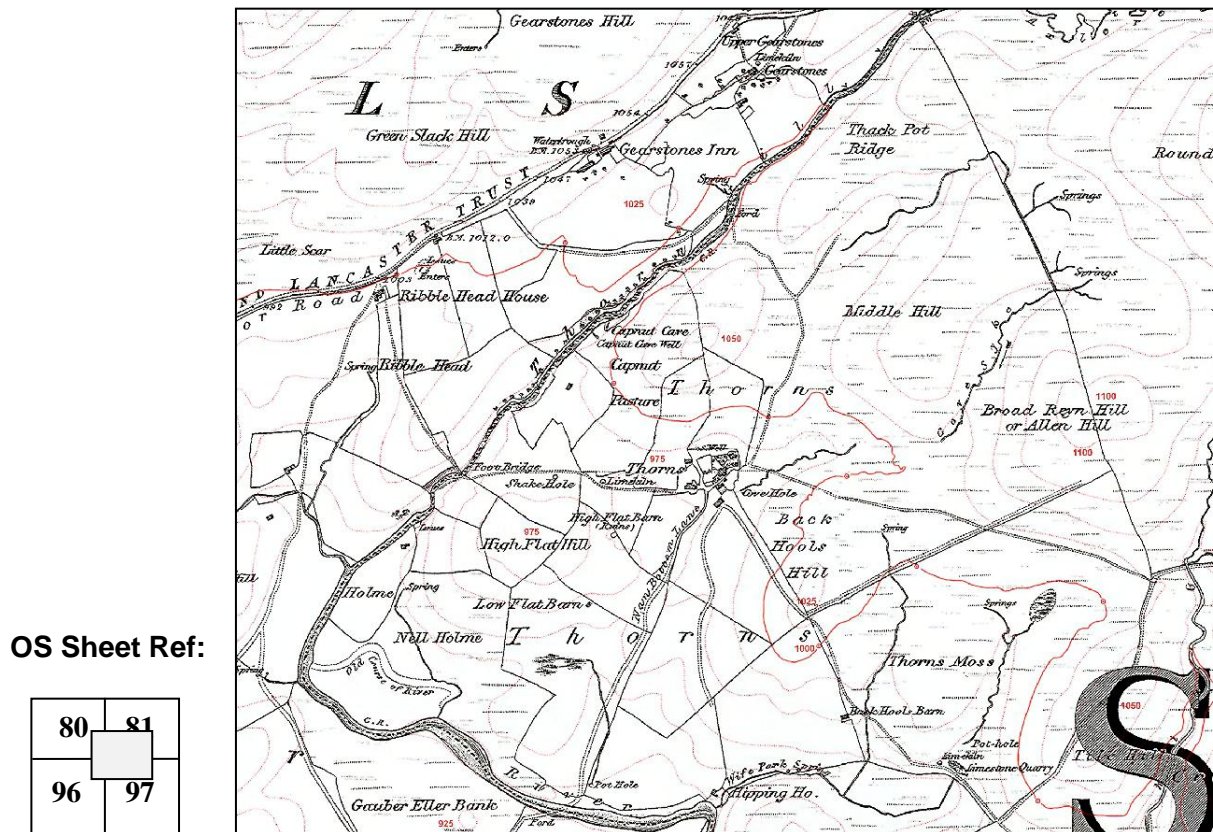


Fig. 9.21 An extract from the First Edition Ordnance Survey map c. 1853 (surveyed by Lieut. Penrice and contoured by Capt. Barlow)

Surveying walls at Thorns as part of the Stories in Stone project

For both of us (Pat and Phil Carroll) the opportunity of working as the supervisors of the wall surveying and recording teams was a most formative and interesting educational experience with regard to both the methods adopted and to the management and employment of volunteers.

When we were asked if we would carry out the supervision of the wall surveys we assumed that there would be a small team of volunteers working with us, without a binding time limit, allowing for the gradual acquisition of skills and the overcoming of problematic situations, as and when they arose.

Our initial plan of campaign was to work as a single team and to take in each of the thirty plus walls in turn – by walking slowly down the full length of one side of the wall, discussing, studying, explaining and noting in detail, as we walked, the wall's building materials, its make-up, capstones, construction, the patterns of the building courses, stone type and sizes. With the use of small coloured flags, all the observed wall features would be marked, such

as built items including changes in style, repairs, wallheads, stiles, gateways, gaps, built passages through the walls and the like.



Fig. 9.22 Wall – what wall? The case of a disappearing wall (Wall no. 12) (Phil Carroll)

Having carried out this initial inspection, the next stage we had planned was to walk back 'up' the wall to where we could cross to the other side and repeat the performance from end to end; then, having carried out this reconnaissance in depth, we intended to split the group in half, with one sub-group for each side of the wall and from the wall 'start' we were then to walk at the same speed – measuring, mapping and photographing the earlier identified features and anything that we had missed the first time round.

However, from the Introductory Day this was not to be, for the list of willing volunteers far outnumbered the line-up for a single workable team and from the afternoon of the second day (5 July), led by the Site Director, it was apparent that two separate teams needed to be employed.

It was very obvious from the onset that if any conclusive results were to be obtained and we had twelve interested people all in a single team, then we had twelve opinions (if not more!) and any joint agreement would prove to be protracted to say the very least, if not completely impossible.

With this salutary lesson in mind, a two-team approach was adopted (though far from ideal) from Day 3, the first of the numerous surveying days, but soon the recording process faced another unforeseen predicament, one that was totally unexpected, a sudden need for urgency, which could have undermined the thoroughness of the working process throughout the entire survey period.

The request for urgency arose with the unexpected introduction of a generous (but unrealistic) payment scheme for volunteers' mileage; however well-meaning this was it created a financial demand which rapidly ate into a budget in which this outlay had not been predicted, bringing about pressure to quickly proceed with the individual surveys, something that was not desirable, considered or expected.

Added to the above, the constant trickle of new faces and the loss of those who had grasped the survey procedure – the 'what to look for', the 'how to record' and even the 'how to read and add details' to a sketch map – so at times the fieldwork, despite much commitment, was often three steps forward then two steps back.

Though we had known and accepted that volunteer staff would be a constantly changing feature, with a variety of people with varying degrees of knowledge, accuracy and interest, we had hoped that with a small number of volunteers this would have resulted in the majority of people working in the group and carrying out the same tasks and routines, at least every other visit. This was not the case and a lot of what could have been productive time, devoted to careful observation, surveying and recording, was taken up in going over the same briefing instructions on the 'learning to look' and methodology that had been adopted.

One aspect of the survey that could only be evaluated on site was the actual identification given to a length of wall, in so much as judging where a wall really started and finished its length. In many of the eventual thirty-nine walls this was not as straightforward as originally expected, for it is not possible, when removed from site, to definitely state that Wall X starts 'here' and runs to 'there', if the wall in question comes into direct contact with another wall (or walls) either at the end(s) or even midway along the wall run (Fig. 9.23).



Fig. 9.23 One wall turning through a right-angled corner or two walls meeting at a field corner? (Phil Carroll)

The original wall numbering pattern became somewhat restrictive in so much as, though some of the walls did actually commence from an easily estimated map location, others did not. They could be extensions of other walls that did not abut their neighbour but were tied in to them, at the so called start, mid-point or finish.

On the other hand, various walls, though shown on the site map as one continuous run, were in fact when studied multiple sections which really required to be surveyed as separate entities, not bits of the same wall. Hence, we eventually adopted a different identification code and if, for example 'Wall 44' was divided into three different sections, owing to various structural changes over time, we used 44a, 44b and 44c to show the differences.

We were fortunate in meeting with the farmer(s) on quite a regular basis and developing an easy working relationship which greatly assisted with the smoothness of the surveying. There was a growing interest on their part which often resulted in them coming out of their way to find us and then questioning us in depth as to what we were looking for, what we had found, why that particular aspect was of interest to us and what information it provided us with. Understandably, despite this rapport, access to the fields remained restricted as to when the land was accessible for our visits open, as the 'sheep year' evolved, resulting in us having to carry out the surveys in a permitted period running from early July to mid December.

The year 2016 was exceptional for vegetation growth, as it was a warm, wet summer and so lush was the grass, weeds and rushes that it made it very difficult to see some of the lower wall features and very easy to overlook items hidden behind the growth (Figs. 9.24 and 9.25). The degree of rainfall, even falling over a limestone area, was so sustained that the boggy ground and the wet limestone underfoot made access at times restricted or even hazardous, thus curtailing progress and leading to a further visit to carry out some of the surveying and recording to complete a wall.



Fig. 9.24 Lush grass beyond the wall and a riotous growth of nettles in the foreground three quarters of the way up a wall (Phil Carroll)



Fig. 9.25 Nettles masking a collapsed creep running from field to field (Phil Carroll)

The Met Office annual report for 2016 endorsed the comments above, making for excellent growing weather:

- (a) Summer 2016 began with a very cloudy and wet June over most of England and Wales, but under cloudy skies the night-time minima were often high.*
- (b) July and the first half of August were characterised by a changeable westerly Atlantic flow with a succession of fronts crossing the UK.*
- (c) June's mean minimum temperature was the second highest in a series from 1910.*
- (d) Summer rainfall totals were above average for most areas. In contrast, July was wetter than average and August was wetter than average in parts of northern England and Scotland. The UK rainfall anomalies were: June (130%), July (101%) and August (96%).*

Nine days with two teams at work may seem to be a long time to survey all the walls, and it works out at little more than two per day, but it was surprising just how long it actually took to cover both sides of thirty-four walls. We actually recorded thirty-eight out of the thirty-nine as

David Johnson surveyed Wall no. 37, though in the case of two (Wall nos. 25 and 33), owing to problematic access, these could only be surveyed along a single side.

A number of walls were surprisingly long with seven over 400m in length and, even using two 100m tapes per team, 'leap-frogging' down the wall side, it took time laying out a tape, putting in the 100m mark at the end, running out the second tape, placing the 200m mark, walking back to the start of tape one winding it up, leaving the 100m in position taking the collected tape to the 200m mark and running it out to 300m and then walking back and so on... repeating the process until the full wall length had been covered (Fig. 9.26).



Fig. 9.26 Wall no. 15 runs off far into the distance heading westwards towards Ribblehead viaduct – with 100m tapes running down the wall side (Phil Carroll)

Not only was it a steep learning curve for all in both teams, it was also at times a physical challenge as well. In the non-ruinous walls, the presence of gateways or gaps allowing access from one side of the wall to the other was often so removed from where a team was working that it was physically impossible for the team supervisor to check on the information given from the other side of the wall.

Thus, it is possible that features masked on one side but visible on the other were overlooked and therefore missed, as the supervisor had to rely on what was offered, but we did resort to passing our cameras over the wall not only to record the many itemised features but also to help understand what 'the other half' was viewing and had queried or had attempted to describe.

As 'beauty is in the eye of the beholder' so, we quickly discovered, is the composition of an old agricultural wall! On a number of occasions long debates had to be cut short; such as over what percentage of the wall was made of limestone or what was sandstone or what shape the majority of the stones were.

We really needed to mark out a wall height along a metre-wide area, so we could count or measure the blessed things but even then it would not have been truly accurate: it would have given us a correct percentage or shape for the one chosen single metre-wide section but one item often commented upon (and discussed in a very lively manner) was how much one side of a wall could vary so much from the other with regard to the percentage of the stone types, the coursing and shape of the stones employed.

Inconsistent weathering on opposite sides of a wall caused conflicting opinions which entered into the analysis equations, as did the variety of plant and lichen growth, not to

mention the numerous patching of walls from previous repairs and multiple modifications over time (Fig.9.27).



Fig. 9.27 The effects of weathering and plant growth on two sides of the same wall profile on Wall no. 29 (Phil Carroll)

However, practice breeds experience, and if we were to repeat the wall surveying exercise elsewhere we know that we have benefitted greatly from the multi-faceted experience of carrying out the surveying work at Thorns, benefits in the field of how and what to record, what equipment is really needed, and how the supporting paperwork could be modified to make the fieldwork operations run more smoothly.

Lessons learned:

1. Preamble

This section of feedback is NOT directed at any organisation, structure or person, it is merely lessons I have learned whilst carrying out the very worthwhile experience of Wall Surveying at Thorns. Throughout we have had the pleasure of working with a really pleasant group of people, from a wide variety of backgrounds and varying experiences, some new to practical fieldwork, some very knowledgeable and proficient. The whole task we believe was conducted in a positive supportive spirit, working together peacefully (!) and in a supportive and, we hope, enjoyable atmosphere.

2. Time allowance

When dealing with any outside activity, big or small, one enormous disadvantage is having to work to a timetable: no matter how flexible the intention was when drawing it up, something WILL go amiss in the field! The weather will be against you, access may not be permitted on the chosen day, illness or just 'not turning up' play havoc with teamwork tied to a scheduled one either fixed or just anticipated.

3. Team structure

With the employment of random volunteers there were bound to be unexpected issues to deal with, both physical and mental: the terrain to be covered, clothing to be worn and equipment to be carried. From an academic point of view the degree of previous knowledge, attention to detail, even the ability to write clearly and complete forms efficiently need to be considered.

4. Task allocation

With an ever-changing team membership, it is very difficult to allocate tasks that require specific briefings and skills and ideally would benefit greatly from repeated use, visit after visit. The measuring and drawing of a wall profile, for example, seen in Fig. 9.28 needs practice.

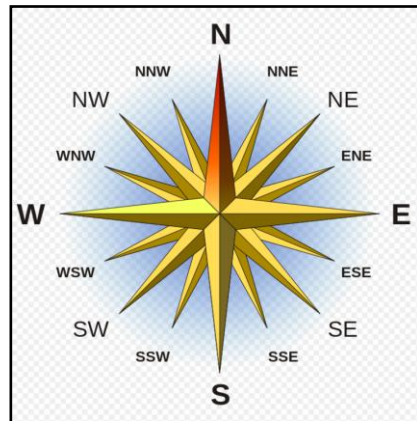


Fig. 9.28 A volunteer using specialised equipment (Phil Carroll)

For example, if the supervisor had been able to delegate the photography to someone in the team then the photographer could have employed his or her own camera, kept personal detailed understandable notes, saved all the images on a memory card taken home and processed – removing poor images and accidents and numbering the rest to match the visited features – then handing over a cleaned-up version to the supervisor at the next meeting. Or there could be a dedicated map maker who employed the same symbols and abbreviations wall after wall, visit after visit, grasping the demands of the specific task then adding to the level of efficiency and accuracy wall after wall: as it turned out, it was an ad hoc arrangement, with changing staff, and this ‘specialisation’ could not be sustained.

5. Required equipment

We soon discovered that one 100m tape was insufficient if any degree of progress was to be made. A method of feature identification had to be developed for photography – not every camera has the facility to enter frame titles for example. Paperwork produced beforehand, despite previous experience, is never quite suited to the task in hand and needs to be modified from the start and then field-tested. Maybe a dry-run prior to embarking on the actual task in hand would have been a worthwhile strategy, not just to help in using the equipment provided and documentation but to help the team gel.



6. Photo identity

The identification of individual photographs needs to be carefully thought out because if using camera direction as part of the identification label just a slight change in direction of 30 degrees could move the identifier from NE to ENE or SW to WSW and, though easily adjusted on paper, the actual image would have changed places in the running order (a real problem when producing the Photo Index).

7. Climate and site

There is little one can do about the climate in the Yorkshire Dales, despite prayers and curses, so one has to live with the challenges it regularly provides. One feature found annoying was that the weather in Horton, just 8km south of Thorns, could be clear and sunny yet at Ribbleshead it was thick low mist that prevented even seeing the road verge. However, we were in the main fortunate and despite drizzly days chose not to cancel any work periods and managed, apart from the torrential rain storm previously mentioned, to work though often not in very pleasing conditions – *‘raindrops on lenses and wet paper working...’*

The ground beneath the surveying teams’ feet varied from week to week, sometimes firm and dry, other times when wellingtons if not waders would have been more suitable. Access to the general site was always manageable but the superb little packhorse bridge was a constant challenge to some of the team, especially when wet.

Escape clause

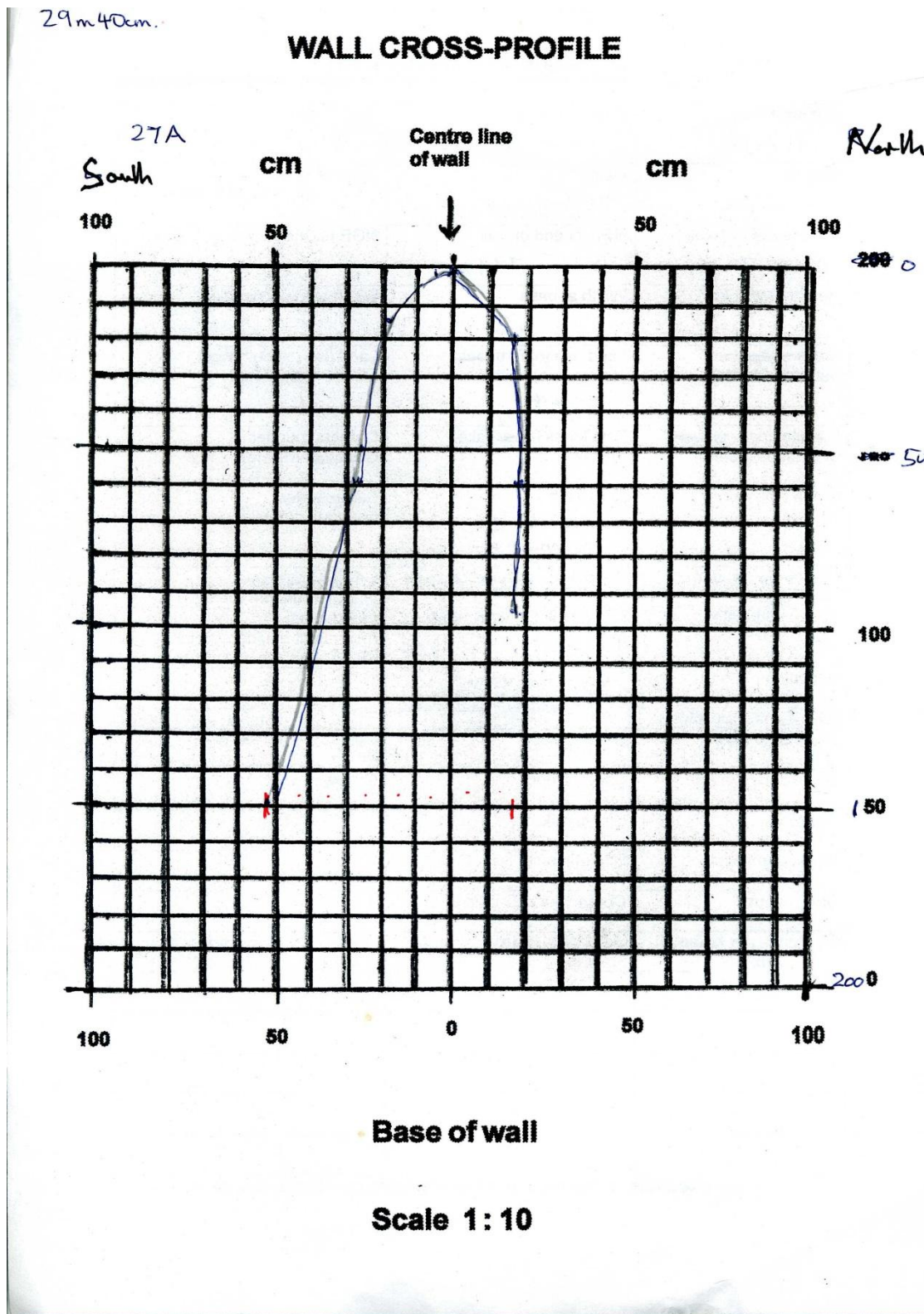
Despite all the above, it was a very productive and worthwhile venture, enjoyable, informative and an ideal opportunity to work under a different regime with unfamiliar people away from the company of group members well known for years.

So thank you for this opportunity and we hope that the material we provide is of help in unpicking this most fascinating and rich part of the Yorkshire Dales – one can well understand, and feel the draw, that this area had for Alfred Wainwright and others.

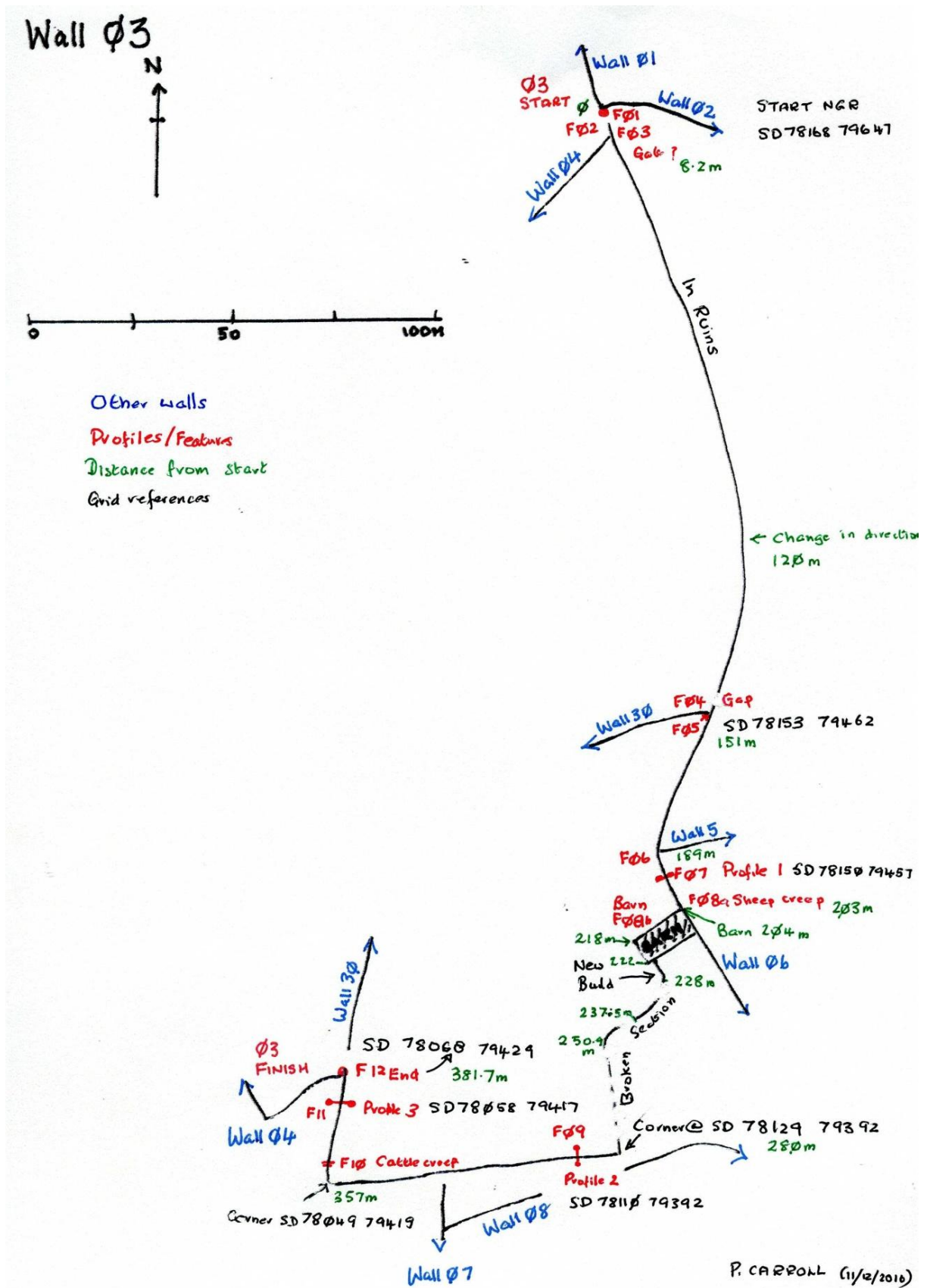
8. Team members

MB, SE, SH, MK, BM, Ray N, Ros N, CO, JO, JP, MSh, TS, M SI

Appendix 9.1 – sample cross-profile field drawing (Wall no. 27A)



Appendix 9.2 – sample field sketch and notes (Wall no. 3)



THE VERNACULAR BUILDINGS OF THORNS

Alison C Armstrong



Fig. 10.1 Thorns 9, cart arch barn (Mark Woronowski)

Contents

1. Recording methods
2. Thorns and nearby settlements: a brief history
3. List of vernacular buildings recorded
4. Building materials
5. Dating the building structures
6. Conclusions: the houses
7. Conclusions: the barns
8. Survey conclusion
9. Appendices
 - a. The 'great rebuilding': evidence from date-stones
 - b. Distribution of reused cruck timber
 - c. Recent dendrochronology
 - d. Features of cruck buildings
 - e. Tabulation of some building structures
 - f. Inventories relevant to Thorns
 - g. Glossary

1. Recording methods

The dwellings and barns of Thorns were recorded in summer 2016 with the work carried out by volunteers, most of whom had never produced such surveys before. A photographic record was also compiled, although summer vegetation obscured some features. All digital photographs and the Photographic Record form part of the Project Archive.

The survey method was that used in most vernacular building investigations, whereby measured plans and elevations and written details are produced from fieldwork. These interpretive drawings aim to show significant features and other evidence which reflect building changes undergone. Heightened roof lines, changes in walling, inserted openings and so on may relate to building phases or alterations over time. At Thorns, some buildings no longer have standing walls and archaeological investigation is more appropriate. However, wall thicknesses, styles of building and evidence of plan-types can still yield some dating evidence whereas excavation may expose missing components such as fireplace sites, flooring, wall bases, plinths and padstones which are not currently visible but are usually important in understanding a building and its plan-type. Plans change over time but the front door of a house nearly always opens into the bodystead (the main living room) heated by a large fireplace. Attempts were made during this survey to measure some demolished buildings from their visible foundations in spite of masses of fallen rubble.¹⁵

Documentary sources are important and are usually investigated as part of a building survey but for the *Thorns through Time* project documentary sources were largely a separate study. Inventories, for example, may name rooms, indicate what they were used for, state if a dwelling was two-storey or single-storey, and what livestock were kept.

2. Thorns and nearby settlements: a brief history

Vernacular buildings are not often surveyed without knowledge of their documented history.

It is known that by 1190 Thorns, together with Selside and Birkwith, was part of Furness Abbey's estate in Horton in Ribblesdale parish, extending around Ribblehead. By 1377 Ingman Lodge/Lodge Hall was also included.

At Dissolution (in 1537) Furness Abbey's estates at Ribblehead consisted of nine hamlets whose names remain today as farmsteads. Thorns, with six monastic tenants, was one of these hamlets. Just to the south, Furness Abbey's estates met those of Jervaulx Abbey where Birkwith, on the boundary, had been in dispute (HLHG 1984, 7).

Horton in Ribblesdale parish seems to have long been valuable for its upland grazing lands but lynchets and ridge and furrow survive to indicate medieval arable land. Cattle as well as sheep were grazed at Thorns in monastic times. In December 1746, according to his probate inventory, Henry Wilkinson of Fawber (a former thirteenth-century Jervaulx property) left ninety-six sheep and twenty cows, indicating more mixed farming aided by land enclosures and soil improvement for higher grass yields.¹⁶ A regime of farming dairy cows with hay meadow grasslands dominated for over three centuries after Dissolution and lasted into the

¹⁵ This chapter was written prior to excavation. See Chapter 12 for details of excavated structures.

¹⁶ Horton Local History Group has been transcribing all wills and probate inventories for the parish, up to 1750. The originals are archived at the Borthwick Institute for Archives at the University of York.

farming boom of the mid nineteenth century: this is strongly reflected in the buildings and fields of Thorns.

The former Lower Gearstones farm, just north of Thorns, held fairs for horses, cattle and grain into the nineteenth century, supported by the network of old roads and tracks, long before the advent of turnpike roads. Although the railway was constructed in the 1870s it arrived too late for this upland area, which struggled with changing economics, poor climatic conditions and competition such as from imported meat on refrigerated ships from America. One barn (Thorns 6, Low Flat Barn) has shippon boskins made from railway sleepers that were perhaps sold off as timber when railway construction ended. The last farmhouse at Thorns was abandoned before 1891. Sheep now wander through the broken walls of former meadows and pastures and, in recent years, hoggs (young sheep up to their first shearing) found winter shelter in Gillheads Barn near Capnut (demolished in 2003). Low Flat Barn, too, appears to be maintained now as a sheep shelter. The vernacular buildings remain as some of the strongest evidence for farming and human occupation in past centuries.

One would expect to find evidence for the six medieval tenements of Thorns but only three houses had been noted prior to this project, all located close together at the hamlet and with no attached barns. Hipping House/Wife Park appears as a rectangular barn or 'field house' in a former meadow on the southern fringes of Thorns. There may, however, be other house sites beyond the present Thorns settlement. It should be noted that houses can be turned into barns and this is seen at, for example, Philpin, Nether Lodge, Old Ing, Gauber and Ribblehead House, all in the Ingleborough area.

Thorns and nearby settlements

Other compact hamlets in the area are Brackenbottom (first mentioned in the 1550s thus post Dissolution) where all its four farmhouses have barns attached to the houses, unlike Thorns. Low Birkwith (twelfth century) has a linear house and again attached barns making long buildings as well as detached field barns in meadows. Ingman Lodge/Lodge Hall is a very fine house (dated 1687) but its barns and other buildings are strung out along the farm road. One six-bay barn at Lodge Hall retains re-used crucks and padstones as evidence of a probable medieval barn site. By comparison with the good seventeenth-century stone houses seen in Low Birkwith, Selside, Lodge and Gauber, Thorns seems remarkably unadorned. Either it has been robbed of any good stonework or the 'great rebuilding' of the seventeenth/eighteenth centuries had little impact and the old houses had remained untouched. There is no architectural display or adornment except some pieces of mullioned windows, re-used in the nineteenth century, but a fragment of a seventeenth-century stone frieze (possibly from a fireplace or doorway) was found in the privy walling at Thorns. The building work is generally very plain with the kind of walling a farmer might be able to do with just a walling hammer and wedges for splitting, without recourse to a skilled mason.

All three potential houses (Thorns 1, 2 and 3) were depicted on the OS map of 1847-48 when they were in a more complete condition. Only two houses (Thorns 1 and 2) remained in 1907. All three are linear three-cell structures but with some additions, for example a rear dairy and porch. These nineteenth-century additions remain only at the surviving farm house (Thorns 1). All three buildings appear to have agricultural ends or perhaps the remains of once longer buildings. There are several cells of variable dimensions across, perhaps

related to the room type, such as a two-bay housebody or a half-bay passage, or to the effect of cruck-construction.



Fig. 10.2 Buildings in the Thorns landscape (for numbers see text)

3. Vernacular Buildings Recorded

Fig. 10.2 shows the location and spatial relationships of buildings across the Thorns landscape.

Building name: Thorns Farmhouse (of four linear cells in all, pre 1600?-19th century; ruin)

Survey number: Thorns 1

HER number: part of MYD 24566, 57869 and 60789

NGR: SD78206 79424

Record date: 25 July 2016

Recorders: ACA, CO, DJ

Report and drawings: Alison C Armstrong

Setting and orientation

The house faces south and lies on the southern side of the hamlet and at the eastern end of Nan Bottom Lane. Nearby is the privy and wash-house which went with its nineteenth-century occupation (see Thorns 11a and b). The settlement goes back to medieval times and ownership by Furness Abbey from 1189-90, and it is surrounded by walled field closes and pastures with outcrops of limestone and drumlins of glacial stony clays. The hamlet was deserted by 1891. Agricultural buildings and unnamed houses remain mostly in a ruinous condition with some seen only as earthworks and some with standing walls. This house is the most complete of the three buildings identified as dwellings but is filled with fallen rubble obscuring details. Excavation would reveal more about its plan and structure.

Documented history

The settlement of Thorns was part of the medieval estates of Furness Abbey at Ribbleshead with six tenements at Thorns. Only three dwellings can be identified from partly-standing remains today. This house, although a ruin, has the most walls still partly standing.

Description

Building type: dwelling house (ruinous).

By the nineteenth century the house was of two storeys and two-cells long with an added rear dairy. Two east cells may have been agricultural. There is evidence of former low eaves suggesting a single-storey cruck phase of pre 1650, perhaps sixteenth century.

Plan form

The building is linear and has four cells, perhaps formerly with five bays (Fig. 10.3). The two western cells, probably a bodystead and parlour with small dairy, make up the dwelling and possibly an end lobby-entry plan beside a (hypothetical) gable stack (excavation is required to establish this). Two eastern bays have only low walls remaining and much cobble stone. Their two straight joints suggest they were built after the house but were of lower status. They may have been service rooms (kitchen, larder) or agricultural bays. The proximity of the house entry door, with a doorway into the eastern bay, could even suggest a former cruck longhouse plan which went out of use. A porch now blocks the eastern bay entry but a joint in the wall may have been for a partition or cruck truss.

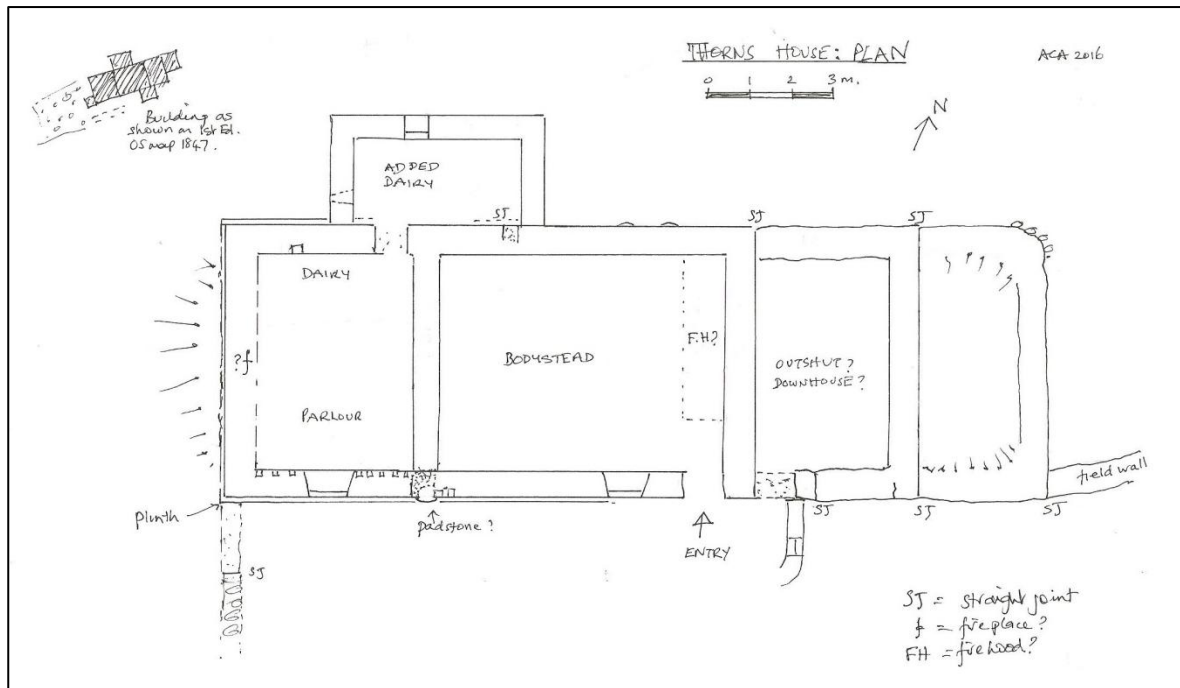


Fig. 10.3 Thorns 1, plan

Materials – stone

Broken sandstone roofing flags lie amongst the fallen material. These were also used on the bank barn of 1835-37. Sandstone flags were also used as drip mouldings. The padstone looks like sandstone with stratification.

The walling stone is mostly of limestone, probably taken from nearby shallow local rock outcrops, or field cobbles, but there are different stone qualities and styles which reflect dating phases.

The added rear dairy has nineteenth-century watershot walling with projecting through-stones and sandstone quoins. The west gable has distinctive older walling below, with thin neat courses of weathered limestone blocks and slim limestone quoins (often a style of the sixteenth century), all on a plinth which extends around the house. Heightened walling above is of smaller limestones in less well-coursed rubble and bigger quoins, perhaps late seventeenth century.

The two east cells have very thick walls, at 750mm, a batter, good coursing and big quoins which suggest seventeenth-century or earlier, built against the present east gable.

Brown sandstone, found locally as glacial boulders, blocks and cobbles, is only prevalent in the dairy, c. 1800, but a slab is used for the older front doorway. Reused reddish sandstone sills and lintels from seventeenth-century mullioned windows form the only real architecture surviving in the house and are assumed to be from the site.

Materials – timber

No timber remains except for one long tie beam (possibly oak) lying in the grass which may have come from the bodystead. It is said the building was damaged by fire in the twentieth century. The narrow rooms would not require trusses, only rafters. The house was probably

of cruck construction originally with low eaves, and a large padstone lies against the stone cross wall which was once a cruck truss. The nineteenth-century house has eight close-set joist holes in the front wall over the parlour, making a substantial timber floor in a heightened two-storey house. It is unclear if the housebody had a similar floor.

Exterior features

The south (front) elevation (Fig. 10.4) is roofless and includes only part of the stonework of the two cells of the house. Walls stand to 4.2m, and much lower walling remains elsewhere. The front wall is 680mm thick suggesting a seventeenth century or earlier date. The gable on the right is similarly 660-690mm thick. Subtle changes in the frontage walling, however, suggest several building phases from a single-storey to a two-storey building. The plinth continues around the west gable and is visible on the north side. Above the plinth can be seen lower walling from an earlier building phase which is well-coursed.

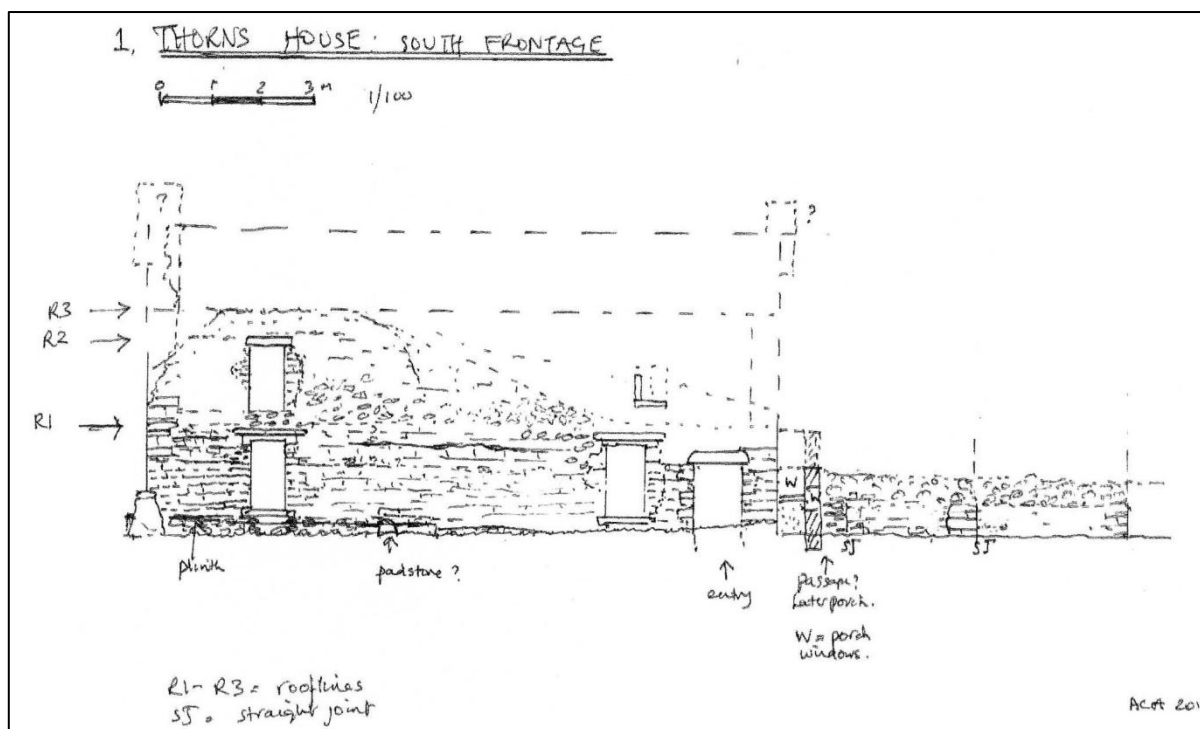


Fig. 10.4 Thorns 1, south frontage

The front doorway on the right gives entry into the bodystead/housebody. The large sandstone lintel with rounded upper corners is common in sixteenth- and early seventeenth-century buildings. The chimney position of the housebody fireplace is unclear due to fallen rubble but one would expect a lobby entry plan with the fireplace on the east gable. If there was a firehood here, then all signs of its structure (a bressumer or chimney corbels or scarfed ceiling beam) are hidden. There is also evidence of the dwelling once being attached to two more bays to the east where remains of an added (possibly nineteenth-century) porch with a small window are built across a doorway into an end bay.

The long rectangular sash windows were part of nineteenth-century improvements replacing the small two-light double chamfered mullioned windows, whose lintels and sills were re-used in the new sash windows. The old stones retain the holes for the iron bars that formerly held the leaded glazing. The mullions are likely to be of seventeenth-century date. The new

upper window reached almost down to the room floor and resembles a forking hole rather than a window. Perhaps some occupations like weaving took place. By contrast the window of the bodystead chamber, recently fallen, was small and square with plain sandstone surrounds and was set lower in the wall (Fig. 10.5).

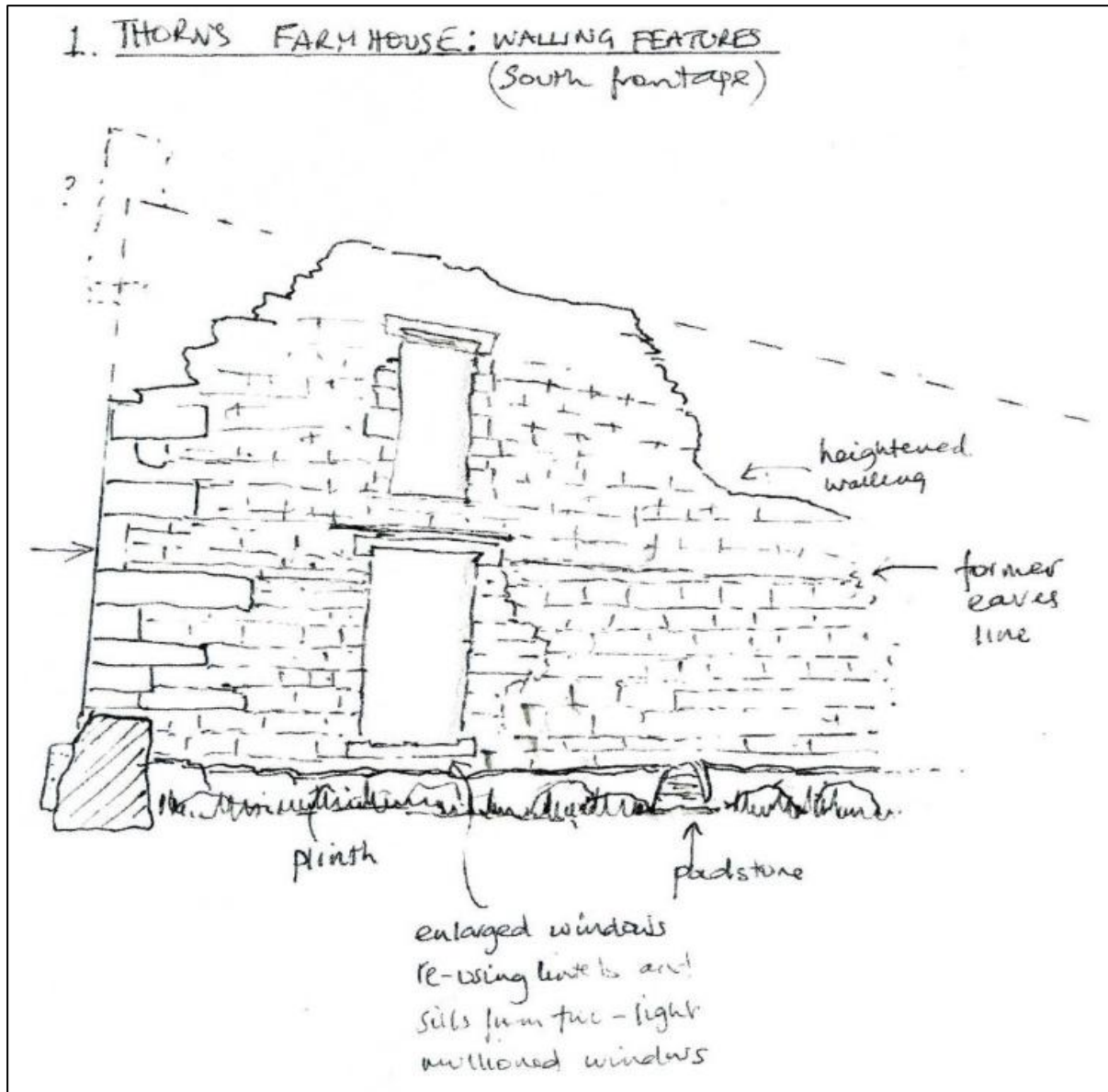


Fig. 10.5 Thorns 1, detail on south frontage

The house gable wall on the east was once connected to two more bays. These may have been agricultural or a kitchen downhouse. These walls reach 900mm thick on the exterior north and east walls but 600mm on a cross wall that may be replacing a removed timber or cruck. A large boulder or padstone and small straight joint also mark this point, again suggesting a cruck phase.

The north wall (Fig. 10.6) is dominated by the added dairy outshut which was perhaps a sub-cellar with a low window and which may have incorporated the stair too. Watershot stonework indicates a probable early nineteenth-century date of 1800-1840s. The walls at 560mm are much thinner than in the older house.

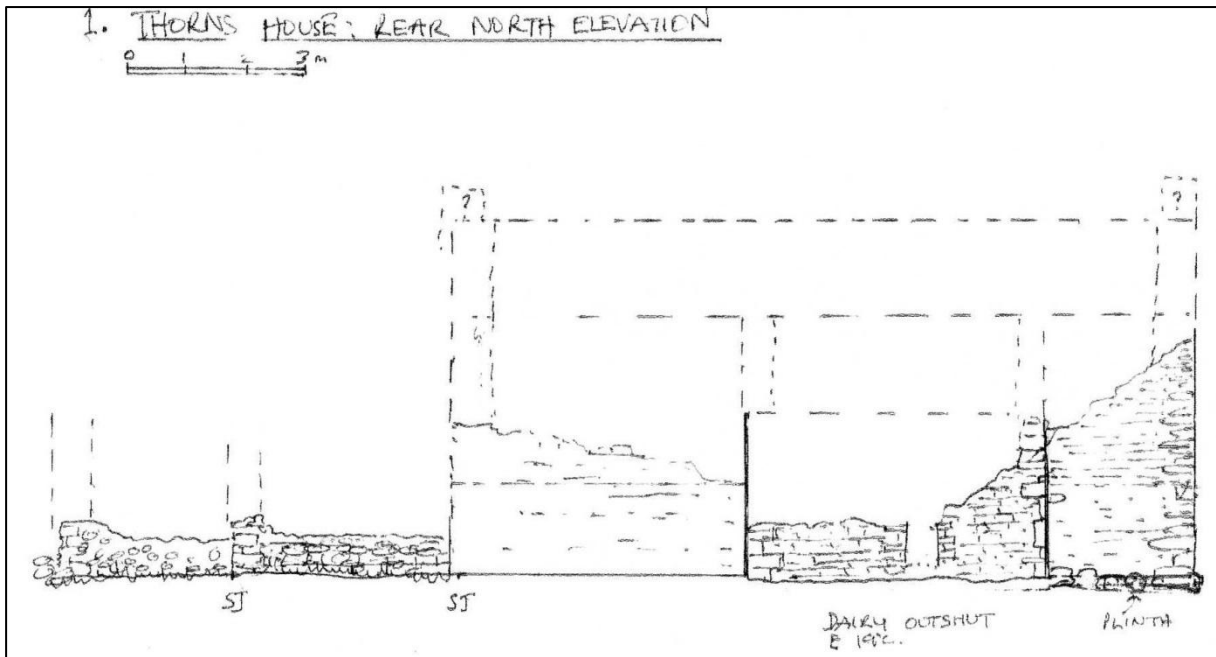


Fig. 10.6 Thorns 1, rear elevation and dairy

The west gable (Fig. 10.7) at the parlour end has collapsed in the centre leaving only the side walls standing. A fragment of mullioned window may be from a small gable window. The probable old dairy was replaced by the added nineteenth-century outshut dairy or buttery. The two wall corners remaining on the gable have well-coursed masonry at the base from an earlier phase. The walls are slightly battered. On the north and south corners are large cornerstones and remains of a plinth are also seen on the front wall. The walling then changes about 1.4m up to uncoursed limestone, as seen on the frontage.

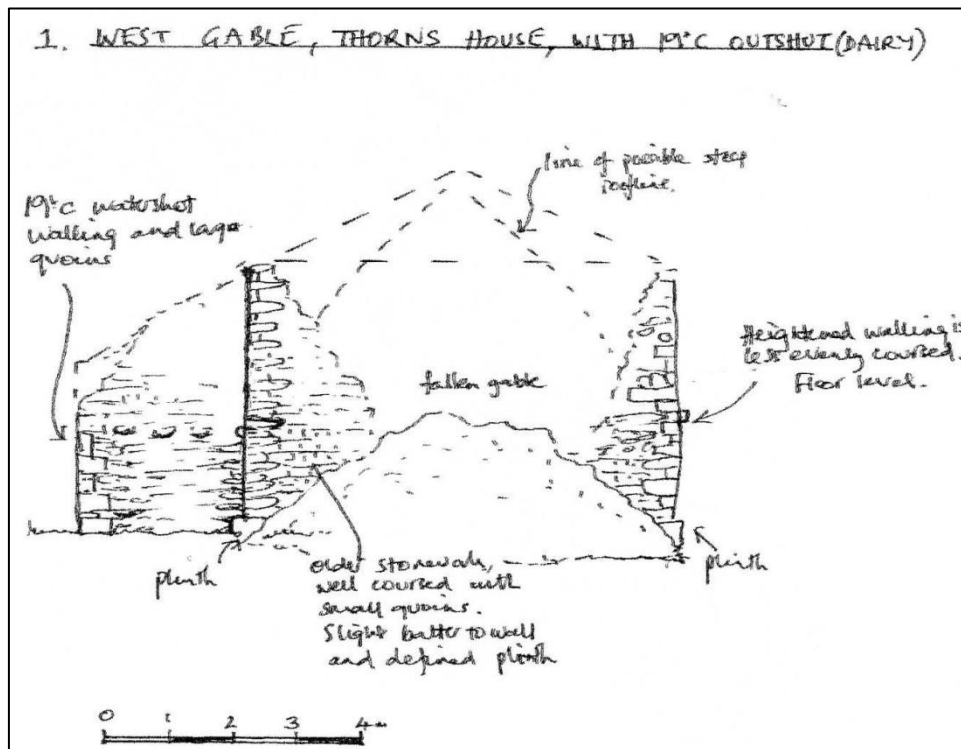


Fig. 10.7 Thorns 1, west gable and dairy

This elevation includes the side of a rear service outshut of c. 1820 which was clearly added to the rear wall. It has watershot walling and large quoins. There is a possible small window or ventilator in the wall thickness.

The standing east gable wall is 660-690mm thick, as is the front wall. On the right, the two low, stone-walled bays have walls 900mm thick but a cross wall, perhaps rebuilt and replacing a cruck, is only 600mm. The two low bays look old but the straight joints suggest they were added to the dwelling. Their purpose, whether agricultural or a domestic kitchen, is unknown.

Interior features

The interior is filled with fallen rubble walling and some roofing flags which conceal room features. Enough walling remains to identify the former two-bay housebody, the adjacent parlour and the rear dairy, and perhaps the stair. There were chambers above the two front rooms. The south wall of the parlour has two long windows with sills and lintels of re-used mullioned windows. The upper sash window was so long that it almost reached the floor level with its very close-set joist holes. These timbers probably met a beam running west-east across the room. A wall candle niche on the back wall may indicate that there was a small dairy at the rear of the parlour before the larger nineteenth-century dairy outshut was added. The dairy outshut retains the doorway seemingly with steps down from the bodystead.

Interpretation and dating

The plinth, padstone, small quoins with neat coursing, and low eaves line suggest the earliest work perhaps c. 1600 or even earlier. The thatched building was probably cruck-built. The padstone of the first cruck bay, built into the plinth, was later replaced by a stone cross wall and heightened walls. A straight joint by the padstone often indicates where a cruck was removed prior to heightening the walls for a full two-storey building in the seventeenth century, with small two-light mullioned windows. Any stone clearance or excavation could reveal other padstones and evidence for fireplaces. The heightening of the walls at the west end does not seem to have been well-bonded with the older walling which has resulted in the west gable falling out from the centre. It is said that there was also a fireplace on that wall (pers. comm. Reg Dobson). By c. 1820 the rear outshut was added against the heightened walls. The mullioned windows were replaced by sash windows with the bodystead chamber receiving a smaller nineteenth-century window (Figs. 10.8 and 10.9).



Fig. 10.8 Thorns 1, rear outshut dairy, on left (Carol Ogden)

The discovery in the privy walling (Thorns 11b) of a piece of stone frieze with an ogee and ovolo moulding is likely to be seventeenth century and from a fireplace or doorhead (Alcock and Hall 1994, 55). This is the only remaining evidence of any decorative stonework in Thorns apart from the mullioned windows.



Fig. 10.9 Thorns 1, front elevation in 2003, prior to collapse (David Johnson)

There are no visible date-stones.

Note

This house was stabilised and consolidated in August 2017 as part of *Thorns through Time* during which many more details of the building were revealed. See Chapter 15.1 for full details.

Building name: Building beside Trackway no. 1 (of 3-4 linear cells, pre 1600-19th century? ruin).

Survey number: Thorns 2

HER number: MYD 39713

NGR: SD78150 79402

Record date: 28 July 2016

Recorders: ACA, LH, DW, MWi

Report and drawings: Alison C Armstrong

Setting and orientation

The house is built right up to the north edge of Trackway no. 1 although field walls nearby have changed their alignment over time. It faces south like most old houses.

Documented history

Nothing found.

Description

Building type

Possible house, linear.

Probably of three cells plus a smaller bay on the east, perhaps a cart shed.

It is ruinous with only a 4m section of walling surviving, part of it to 1m high (Fig. 10.10).

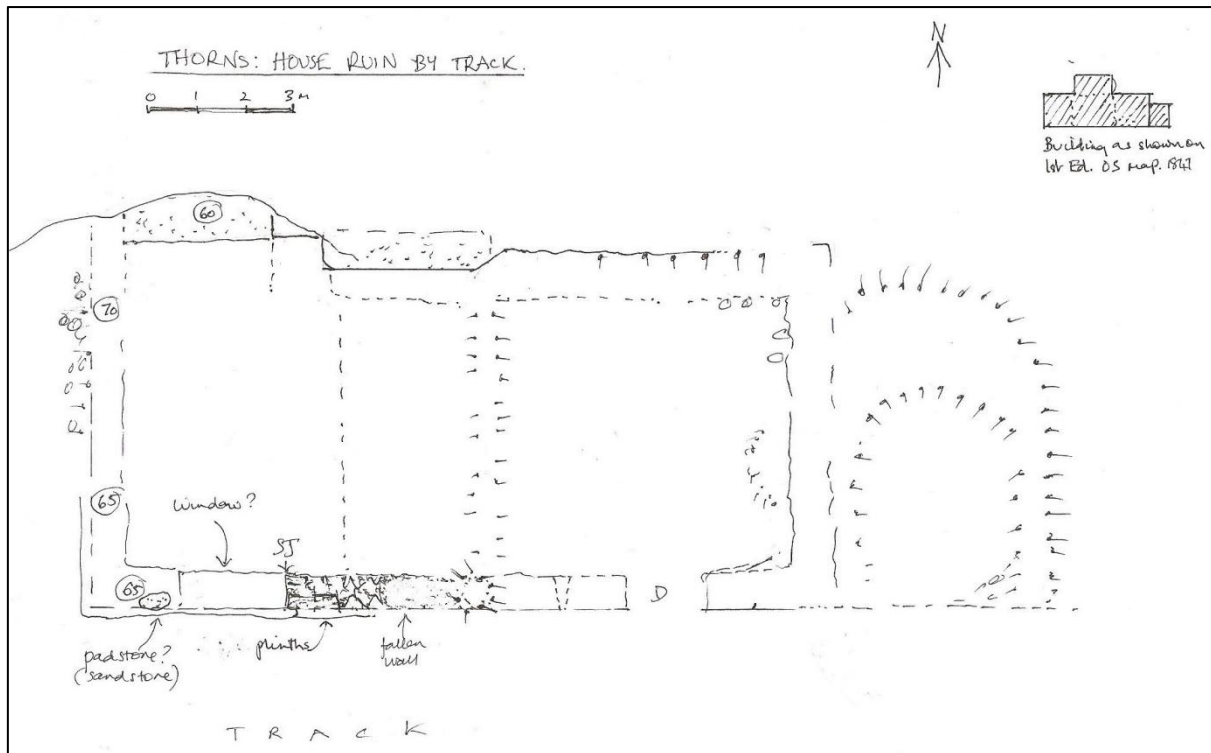


Fig. 10.10 Thorns 2, plan

Materials (stone and timber types)

The surviving length of wall is of well-coursed limestone rubble, as also seen at High Flat Barn (Thorns 7). The interior has mounds of fallen limestone walling, possibly small filling stones. The outer stone blocks seem to have gone. There is just a little sandstone, notably a large, flat-topped boulder used in the south-west corner and part of the lower plinth and a large, pecked sandstone slab of gritstone in a possible blocked opening (Fig. 10.11).

Exterior features

The walls have mostly been demolished but visible wall sections are 600-650mm thick perhaps reflecting different dates with wider walls being the oldest.

The rear wall is an uneven line with stone structures, perhaps remains of fireplaces or a rear outshut as shown on the 1846-48 OS map. The only standing wall is 1m high and about 4m long and it faces Trackway no. 1. It is no more than 650mm thick and might be a re-fronting. The length of wall indicated that the house had well-coursed limestone walls with a narrow low plinth visible at the base running up to a straight joint on the east. To the west the plinth meets the level top of a large sandstone boulder at a cross-wall. This plinth continues to the east, beyond the straight joint, as a much higher plinth and a large sandstone slab infill part of the wall. This stone may be re-used and there is no sign of the stone on the inner side of the wall. It does not seem to be an infill of a window opening. One possibility is that a cruck truss was pulled from the wall leaving a hole that needed filling.

Further to the right there is a small mound by the cross wall but the mass of fallen stone debris obscures the details.

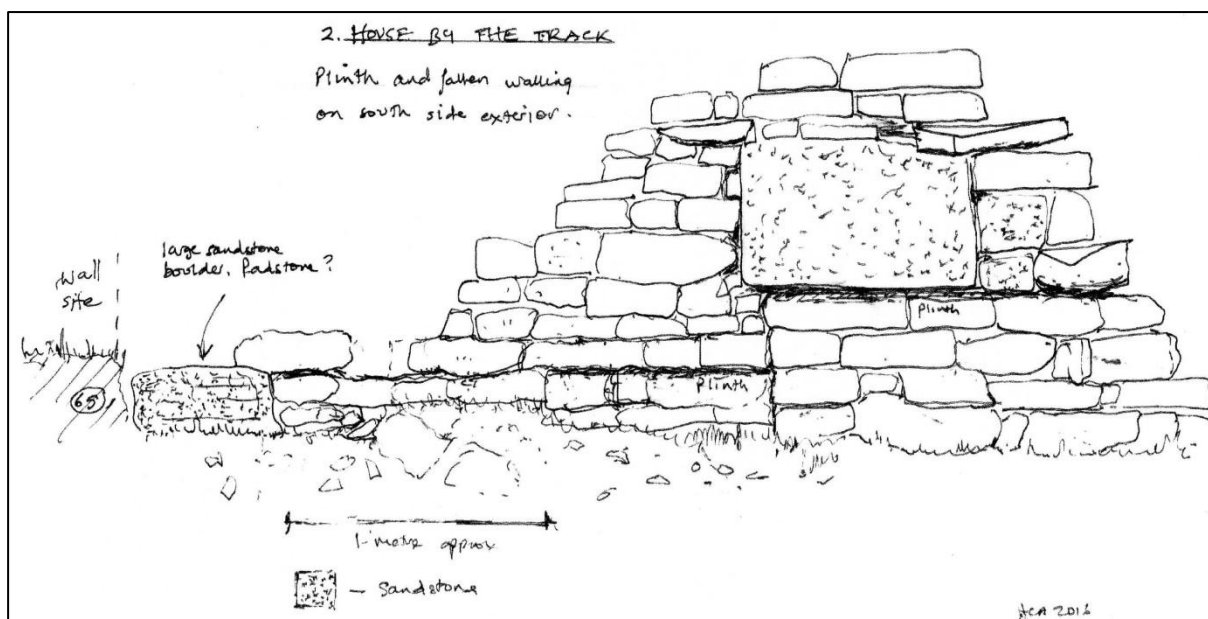


Fig. 10.11 Thorns 2, front (south) wall

Interior features

The long building is divided into three by two stony banks that seem to line up with the back wall making a three-cell structure. The back wall has some solid structures that might be fireplaces. Excavation of the floor may reveal doorways and fireplaces and establish the building's plan form.

Plan form

The plan is linear, of two or three cells of uneven widths, plus one shallow earthwork which was probably non-domestic. The house is about 8m deep and 16m long. It has stone walls which are 600mm wide on the west side which suggest a seventeenth-century date. Towards the rear the walls are 650mm thick and older. The right-hand bay appears to have a doorway and a ventilator slit and was perhaps converted for animals.

Interpretation and dating

This is another linear building common in Thorns and in Ribblesdale where cruck-built structures were once common. The well-coursed stonework with a plinth at two levels is similar to the remains seen at High Flat Barn and Low Birkwith, both of which have double step plinths. A large sandstone boulder in the corner could indicate pre-1600 building perhaps with cruck timbers.

There are no date-stones.

Note

This building was subjected to excavation in June 2017. See Chapter 12.3 for full details. See also Chapter 15.1 for interpretation of this building based on the results of excavation.

Building name: House of three bays (earthwork)

Survey number: Thorns 3

HER number: nil prior to the project

NGR: SD78223 79450

Record date: 28 July 2016

Recorder: ACA, LH, DW, MWi

Report and drawings: Alison C Armstrong

Setting and orientation

The uneven linear foundations of a three-cell house (possibly three cruck bays) in the hamlet of Thorns stand behind the remaining farmhouse (Thorns 1). All that can be seen are stony banks marking the former walls (Fig. 10.12). There appears to be an access to the house on its east side where there is still a holloway.

The 1846-48 OS map shows two garden plots in front suggesting a house not a barn. The stone-cored banks of these gardens remain. The map shows that the bottom of the garden had a small building and its corner wall still survives embedded in the present field wall (Wall no. 27) on the lane.

Documented history

The shape of the house shown on the 1846-48 OS map is very similar to its present earthwork form with three linear cells. In addition, however, there was an extension on the front, perhaps a porch around a door and an extension on the rear wall, which may have been a dairy. The adjacent farmhouse (Thorns 1) also has added rear dairy of c. 1800, in a similar position.

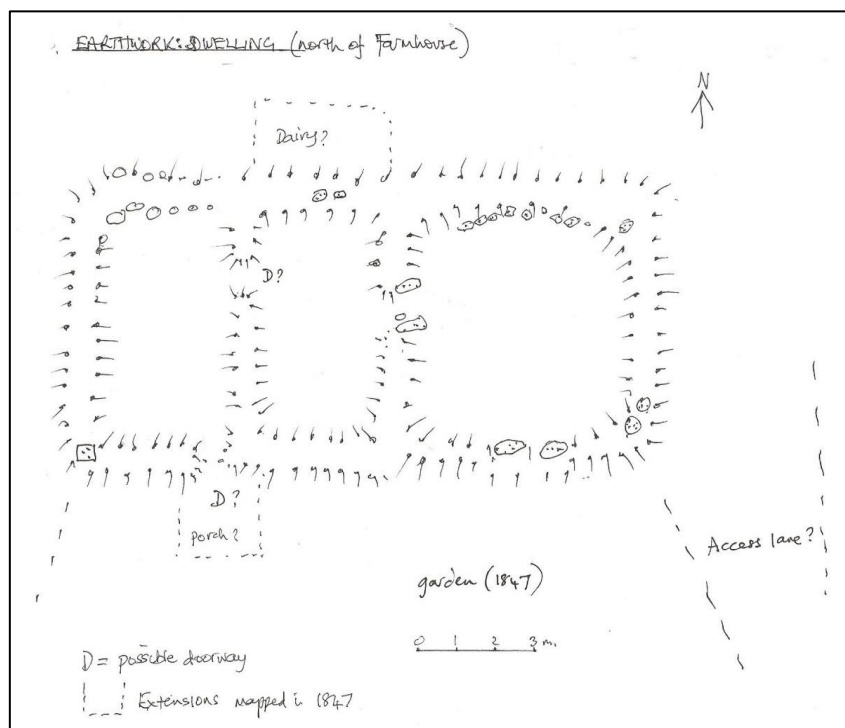


Fig. 10.12 Thorns 3, plan

Description

Building type

Probable house, linear, of three uneven bays or cells and probably an added rear dairy and front porch.

Materials (stone and timber types)

The rubble walling that remains has a remarkable quantity of sandstone cobbles and some boulders but very little limestone. This is in contrast to the other buildings in Thorns. Large sandstone boulders are seen forming the plinths at Holme Barn and Low Flat Barn. The rubble walling is now reduced to grassy banks of stone but, if this was a surviving linear and cruck-built structure, the walls would be low and not produce much stone for reuse. No roofing material was seen among the rubble.

Exterior features

The extension on the north side, mapped in 1846-48, remains as a stone depression now supporting mature trees. It may have been a sub-cellar dairy like that at the remaining farmhouse (Thorns 1). Walling remains at the front may have been a porch. The three linear cells have remarkably rounded corners suggesting quoins were small or robbed out and that the building easily fell in.

Interior features

The dips in the stonework are possible doorways. The dip in the third bay has very large upstanding stones adjacent which might be a doorway into the second cell, or a fireplace.

Plan form

It has a linear plan of three uneven cells with possible linking doorways. Additions, shown on 1846-48 mapping, were perhaps a porch and dairy. There are two garden plots on the south-west side, one of which has the corner of a building, perhaps a peat house, in the field wall.

Interpretation and dating

Without excavation it is difficult to analyse but linear, though unequal cells, suggest a possible cruck building of before 1650 and perhaps medieval. If medieval, then it may have been a longhouse with house and barn joined. If the east cell was a byre, this may have become a kitchen at a later date, with the front doorway moved. The building was demolished after 1848 and no longer mapped. The presence of gardens shown to the south on the 1846-48 map suggests a dwelling not a barn.

Five early eighteenth-century inventories for Thorns indicate all houses were of two cells (parlour and housebody are named) but only one has two full chambers above and is fully two-storeyed. One house has two 'lofts' indicating a single-storey house probably cruck built. Two have no mention of any upper rooms which could suggest single-storey cruck-built houses survived. No date-stones are visible.

Note

This building was subjected to excavation in June 2017. See Chapter 12.3 for full details. See also Chapter 15.1 for interpretation of this building based on the results of excavation.

Building name: Holme Barn (16th-19th century, earthwork)

Survey number: Thorns 4

HER number: MYD 57857

TFB number: nil

NGR: SD7765 7926

Record date: 17 August 2016

Recorders: ACA, GN, CO, MWO

Report and drawings: Alison C Armstrong

Setting and orientation

The field barn is now a ruin, low, stony and grass-covered, having been demolished a century ago (it is shown on the 1846-48 OS map but had gone by 1907). Its frontage with mew and shippon-entry doorways faced almost south. Mounds of rubble, with some glimpses of wall edges, give an idea of the former L-shaped plan. The field barn stands on a flat floodplain at the northern end of its former meadow, named Holme. Here the nearby river flowing down Thorns Gill emerges from a limestone gorge into the flatter riverside field of Holme. Holme derives from the Anglo-Saxon word for a water meadow and the field may have a long history and perhaps there was syke activity here, where deliberate flooding encouraged new spring grass growth in the holme. A small channel alongside the river, but below the bank, may be syke earthworks. A limestone scar, just north-east of the barn, has a field wall of large stones along its top forming the northern boundary of Holme field. The rough and wet field of Nell Holme forms the eastern boundary of Holme. Holme and Nell Holme were historically part of Gauber farmstead rather than Thorns.

Documented history

Holme Barn may go back to early post-monastic times when farming changed to concentrate on cows, milk production and hay meadows. Some thick walls and a boulder plinth could be of pre-1650 date. The widening of the shippon end to create an L-shaped barn allowed another one or two cows to be overwintered, and this is likely to be a late seventeenth- or eighteenth-century improvement, not unusual in the Dales, as liming and manuring of the soil and pasture gave increased grass fodder yields.

Description

Building type

The field barn is shown on the OS map of 1846-48. It must have gone out of use and been demolished before 1890 by when it was no longer shown. It is now a stony earthwork which retains its L-shaped plan (Fig. 10.13). Dips in the rubble indicate probable doorways.

Field barns were used for overwintering a few cows, fed on meadow hay harvested from the surrounding field close. The accumulated winter manure was an important product for fertilising the meadow grass crop as it grew in summer, when the cows moved up to the higher pastures. This is one of several field barns at Thorns. Winters were long but perhaps milder and wetter than in the dales further east. This might explain the L-shaped barn, common in Ribblesdale, where more cows could be over-wintered than in a rectangular barn.

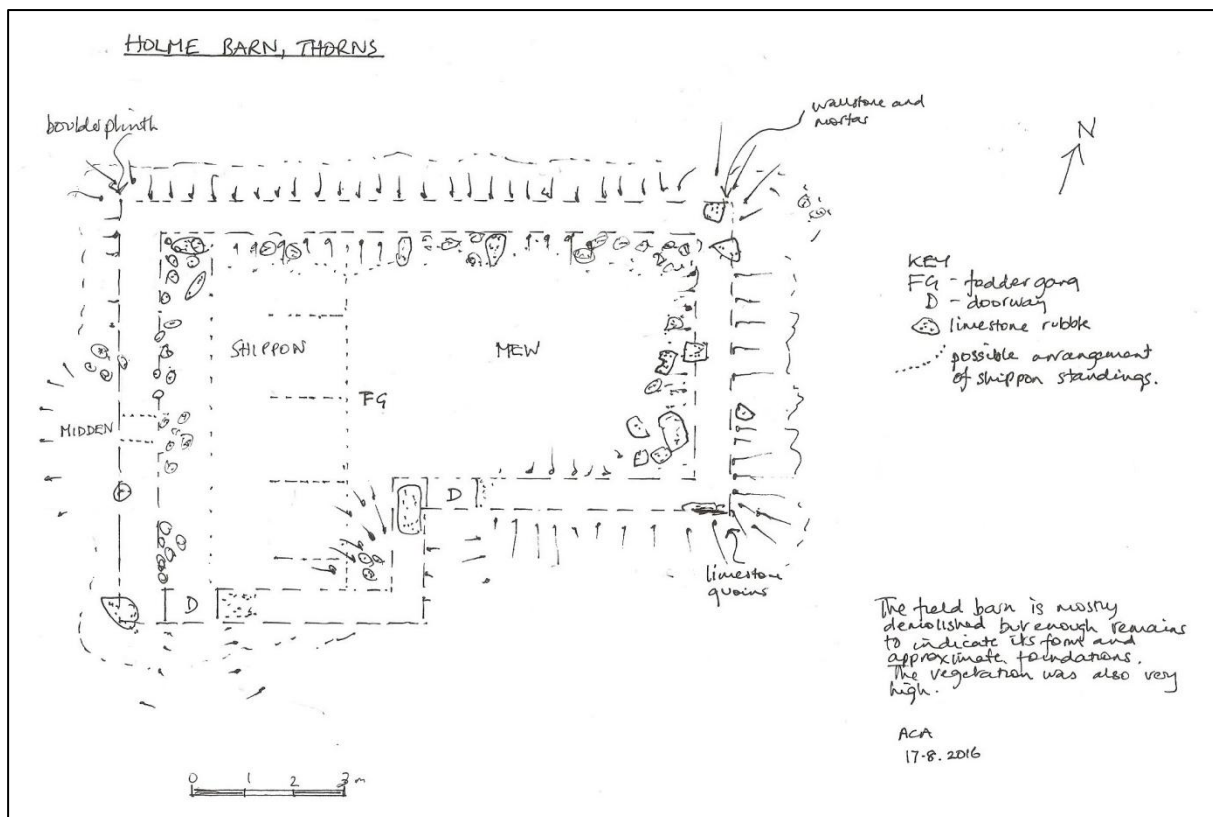


Fig. 10.13 Thorns 4, plan

Materials (stone and timber types)

The walling is all of local limestone rubble blocks perhaps pulled from the riverside outcrop nearby. A foundation plinth of brown sandstone boulders from the local soils was observed at the north-west corner. Remaining walling has no evidence of dressed masonry work although the limestone shows some evidence of rough hammer-dressing for shaping the stone.

Exterior features

Summer vegetation obscures features and the plan is probably an approximation of what was observed. The walling is all of limestone rubble blocks with limestone fillings in the centre.

Large rough-shaped limestones are probably the remains of lintels. One natural arch-shaped limestone lies at the upper gable end and may have been used as an owl-hole lintel, high in the gable. Quoins seem to have been robbed out whilst walling rubble was left. There is no sandstone except as large foundation boulders. Very large clearance boulders of sandstone form corner plinths suggesting foundations of the seventeenth century or earlier.

Some wall edges can be seen indicating actual wall thicknesses. These vary from 600mm in the widened shippon to 700-800mm for a probable older rectangular barn. The wide spread of rubble inside and outside suggests any standing walls were pulled down and had subsequently been used as a quarry. No timber was seen from the roof trusses. Pieces of roofing flag indicate a stone roof.

A visit in 2012 when the grass was lower suggested there were remains of a boulder plinth at the base on the northern sides but this is not exposed now. It could suggest an early barn on the site, possibly pre 1680. The 10m length by 6m width (before shippon widening) is a typical rectangular field barn size and shape. The L-shaped plan is not unusual in the Dales where the shippon is widened beyond the hay mew. The shippon and mew door entries seem to be where there are gaps in the walling marking the position of the shippon door in the extended shippon on the south and the mew doorway in the narrower barn on the north. All building work appears to be that of a waller-farmer, and lacks any work by a skilled stonemason.

Interior features

The interior is filled with heaps of grass-covered rubble so no paved shippon floor or earth hay mew are visible. The wide end may have had a shippon with two lines of standings each side of a foddergang or only one line of standings. Only full excavation could reveal more about the lower walling.

Plan form

Although demolished, the barn retains the footprint of its L-shaped plan as shown on the OS map of 1846-48. The L-shaped field barn is seen in many of the dales, such as in Upper Wharfedale, but this is the only one in Thorns. Two L-shaped barns at Low Birkwith are of similar size, one with an extended shippon of thinner walling, as here. At Low Birkwith both barns have reused cruck timber.

Improved liming and manuring gave greater grass yields, whilst widening the shippon allowed an extra cow or two to be overwintered. Five or six cows could be accommodated here. The mucking-out hole and midden would have been at the low gable end. A dip in the land on the exterior may mark the midden where manure would have been shovelled. The hay forking hole for the mew would have been on the uphill gable where the ground has been raised indicating the use of a hay-sled for moving the scythed and dried hay. There is no surviving garth or water trough around the barn but possibly the cows went to the nearby river for daily water in winter.

Interpretation and dating

OS mapping shows that the traditional L-shaped barn with wide shippon and narrower mew was present in 1846-48 and later. By 1907 the barn was no longer shown, presumably having been demolished.

There are no architectural features now remaining to allow dating. The lack of any good masonry in Thorns suggests most buildings were the work of farmers who could do walling work themselves using limestone outcrops and clearance stone available from the field.

The presence of a sandstone boulder plinth may indicate cruck construction in the sixteenth or early seventeenth century prior to shippon widening. Surveys of c. 1605 and 1608 in Grassington and Kettlewell show that dozens of field barns existed at those dates, some in the old arable fields. Built evidence of these early barns includes use of cruck trusses (often of ash after 1600 rather than the oak of monastic times) with thick walls, low eaves and steep roofs of thatched materials (ling or sedges and grasses). Perhaps the barn began c.

1600 like this. Many barns were rebuilt in the late seventeenth and eighteenth centuries with higher eaves and stone roofs. Heightened roof lines are a widespread feature in the Dales including Ribblesdale but at Holme the demolished walls have removed such clues. The mass of fallen stones obscures any padstones or sixteenth-century walling. It was thought that the building had a plinth visible at one point and temporary removal of turf at the north-west wall corner did reveal sandstone boulders and large limestones as a foundation which could date nearer 1600. In the eighteenth century the rectangular barn was probably heightened and changed to an L-shaped plan, giving a wider shippon with more cow standings and increased room for hay storage.

The L-shaped plan can be compared to other older Dales barns. The L-shape arises when a shippon is enlarged to accommodate an extra cow or two over the winter. Farming improvements with greater use of lime and manure in the seventeenth and eighteenth century allowed greater grass yields thus higher stocking ratios. Renard Close Laithe at Kilnsey, for example, is almost the same size and shape as Holme Barn. It has a date-stone of 1687 indicating a rebuilding but also crucks reused for two seventeenth-century roof trusses, and documentary evidence that shows it was present by the early seventeenth century. Two barns at Low Birkwith (YVBSG 1996, 35-41) of almost identical size and L-shape are associated with evidence of earlier cruck buildings.

Recent dendrochronology has shown that old oak cruck fragments on monastic sites in Ribblesdale (as at Long Preston and Winskill in Langcliffe) were from trees felled around 1500, thus late monastic. Such evidence does not survive at Holme Barn but an excavation might allow investigation of the floor and lower walls and establish if it once held cruck trusses.

Other questions to investigate are if there are any padstones or holes where crucks once stood, and if the widened shippon was rebuilt or added on to an older barn.

No date-stones are visible.

Building Name: Gillheads Barn (demolished)

Survey number: Thorns 5

HER number: MYD 58885

NGR: SD7793 7957

Recorders: ACA, GN, CO

TFB number: nil

Record date: 17 August 2016

Report and drawings: Alison C Armstrong

Setting and orientation

The field barn had stood roofless until being demolished in 2003. A stony platform marks its site in the limestone Gillheads Meadow below the rougher and higher land of Capnut Pasture. The meadow is largely devoid of the great erratic or tor-like perched limestone blocks that make a trail, in the lower adjoining meadows, suggesting they have been cleared away, perhaps when the barn was built. The old field wall to the south has an unusual zig-zag course with large perched blocks forming the corners where the field wall turns. This wall could be old, perhaps medieval.

Documented history

Not investigated. Eighteenth-century inventories for inhabitants in Thorns indicate farming was of a traditional nature in the Dales in post-Dissolution times, with cow-keeping and hay fodder production, along with butter and cheeses made at home.

Description

Building type: field barn with an added outshut shippon.

The two-bay field barn, with added nineteenth-century outshut shippon (Fig. 10.14), gives an overall squarish plan.

An aerial photo of 2002 (available on Google Earth) shows the barn when still standing but roofless; measurements have been taken from that aerial image.

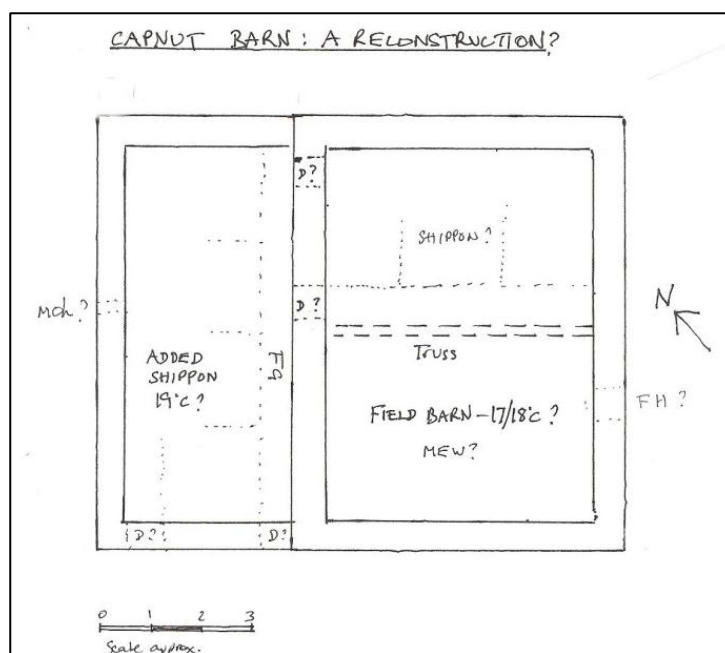


Fig. 10.14 Thorns 5, plan

Materials (stone and timber types)

Nothing remains of the building except a mid nineteenth-century tie beam from a roof truss. This is of sawn softwood timber from the Baltic area and retains ironwork for a suspension-bolted kingpost truss and notches for housing the principal rafters. This allows a reconstruction of the truss (Fig. 10.15). Stonework appears to be all limestone.

Exterior features

Nothing remains of the building except a depression where it was demolished. There is no sign of a fold yard or garth for watering livestock in winter.

The aerial photo of 2002 shows the barn roofless. The barn plan consists of two parts. The older barn was a traditional rectangular field barn, about 6.5 x 9.5m, which would have had a mew doorway and shippon doorway. In the nineteenth century a new outshut shippon, about

4m wide, was added to the long north-west wall of the older barn. The barn walls were probably heightened and re-roofed with the new kingpost roof truss. This new shippon increased the number of cows overwintered from five to eight or nine: there were in fact nine stalls but one was rather narrow so only housed one beast.¹⁷ As often happened, the old barn probably became the hay mew with enough capacity to store hay for the extra cows.

Excavation of the barn might expose foundation stones and dating features.

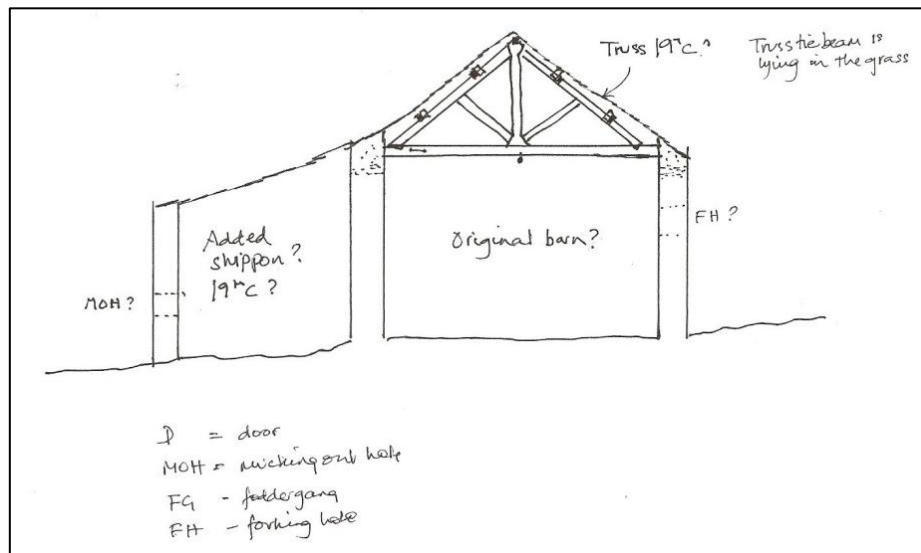


Fig. 10.15 Thorns 5, 'reconstructed' section showing roof truss

Interior features

Measurements across the older shippon indicate standings for five cows. The winter hay fodder would have been stored in the hayloft over the shippon and in the mew. A narrow door led from the main barn to the outshut shippon, centrally placed along the dividing wall. Excavation might reveal the paving, its plan and wall thicknesses. Some waney timbers survive, still stacked on the grass, along with the nineteenth-century tie beam and what may be rafters or hayloft timbers.

Plan form

A rectangular barn for five cows (perhaps of seventeenth- or eighteenth-century date) was extended c. 1830 with an added nineteenth-century outshut for eight or nine cows. The north elevation of the barn held two forking holes, while there were two mucking-out holes in the south wall of the outshut. Access to the outshut foddergang was through two doors in the outshut's west gable.

A barn in Newhouses has a similar expansion arrangement (Pacey 2009, 30).

Interpretation and dating

Many field barns in the area date from the eighteenth century but a number are rebuilds of earlier cruck barns of sixteenth- or early seventeenth-century date. Without excavation it is unclear if there is a plinth or padstones or heightened roofline here. Certainly the size of the

¹⁷ Pers. comm. Reg Dobson.

older building, at about 6.5 x 9m, is typical of many field barns ranging from either side of 1700. Low Flat Barn in Thorns is of similar size. The old shippon width allowed standings for overwintering about five cows facing the foddergang and hay mew. In the nineteenth century the added outshut allowed eight cows to be stalled.

The barn is shown on the OS map of 1846-48 as a rectangular shape with one side facing north-west towards the river.

The surviving tie beam of Baltic softwood and the early/mid nineteenth-century date probably mark the time of the outshut extension of the barn. The old barn became the new hay mew. The new lofty outshut shippon, like that added to the bank barn, would have met nineteenth-century conditions for better ventilation in barns whilst cheap feed allowed traditional Dales dairy farming to continue in the nineteenth century. This was a boom time in farming and grassland improvement. The farming depression that followed meant that by 1891 no residents remained at Thorns. In the twentieth century the farmer used the barn for sheltering hogs.

Similar bolted softwood trusses are seen in other barns in Thorns (such as the bank barn, Low Flat Barn and Back Hools Barn) and perhaps reflect investment at the time of the Farrer Estate's purchase of Thorns in 1824.

No date-stones exist.

Building name: Low Flat Barn

Survey number: Thorns 6

HER number: MYD 58653

NGR: SD77966 79195

Recorded by: ACA, LH, DW, MWi

TFB number: HOR 163

Record date: 28 July 2016

Report and drawings: Alison C Armstrong

Detailed Description

Building Type/Purpose

Field barn, of two bays, for overwintering four or five cows with their stored hay fodder (Fig. 10.16).

Materials

Its stone walling is mostly of local limestone blocks with a few brown sandstone cobbles from glacial deposits. Sandstones are roughly dressed and used for quoins and door jambs. A gable plinth on the north end is of sandstone boulders and limestone blocks. Through-stones are in rows with rubble walling stones. The barn floor is obscured by sheep manure but is probably earthen in the hay mew but cobbled or paved in the shippon and foddergang. Roofing is of slate flags.

The boskin posts, which are probably not the original timbers, were made from railway sleepers cut down to fit. The timbers preserve the imprint of iron fixings which were bolted to the sleepers and carried the rail tracks. Apart from second-hand timber, iron from an old bedstead is amongst the number of reused items that make up the hayloft floor. The head of a long-handled mucking rake with three prongs was found in the shippon and would almost certainly have been used here.

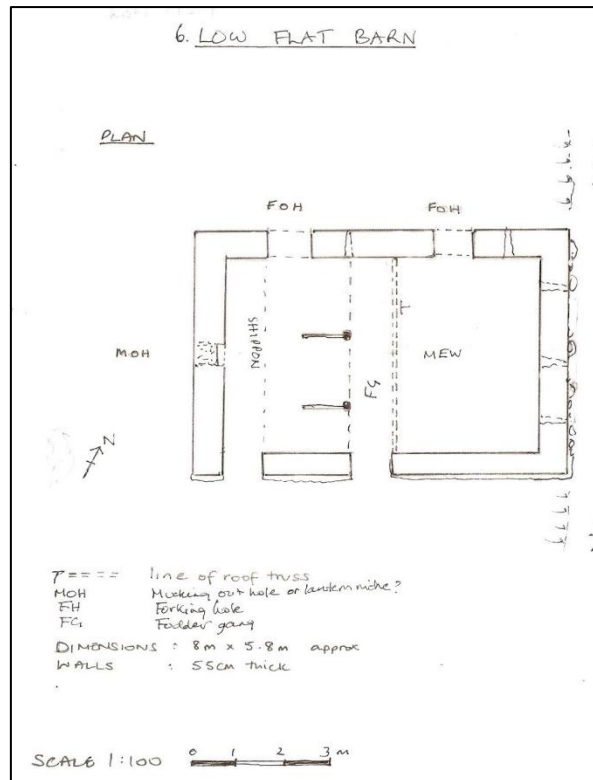


Fig. 10.16 Thorns 6, plan

The single timber roof truss was made from imported softwood timber, as were most roofs in Thorns including the cart-arch barn, the bank barn and Back Hools Barn.

Harling or a render of stony gravel and lime covers much of the exterior walling, except where it has been recently rebuilt or repaired. It is a common finish in the area and seen on nearly every building. The lime may well have come originally from the nearby lime kiln. The render has a habit of weathering into circular or bubble-like shapes, and it was widely used at Thorns.

Exterior detail

The rows of prominent through-stones are a feature on all walls along with the patchy rough render or harling as coating.

The east frontage is a typical two-door-plan field barn with doors leading to the shippon and the hay mew (Fig. 10.17). The shippon door on the left (south) has a thin lintel but is strengthened by the use of partial lintels above, a feature also seen in Wensleydale where stone is flaggy and thin but not very long. The foddergang door on the right (north) has a large limestone lintel. There is an area of dark walling over the hayloft which is bulging and the result of an earlier rebuilt section of walling.

The south gable has been rebuilt, probably recently. The shippon mucking-out hole, seen inside the barn, has been blocked on the outside, probably during the consolidation work.

The north gable has four lines of chunky through-stones (Fig. 10.18). There are two prominent wall cracks at each side. The quoins are large and mostly sandstone but one prominent sandstone quoin is seen at mid-height on the right side on Figure 10.18. At eaves

level the wall appears to have been consolidated or rendered differently from the rest. The roof appears heightened slightly. A plinth of large boulders forms the wall base but may belong to an old field bank near the barn gable (which shows up in the Walls and Ditches and Banks Surveys).

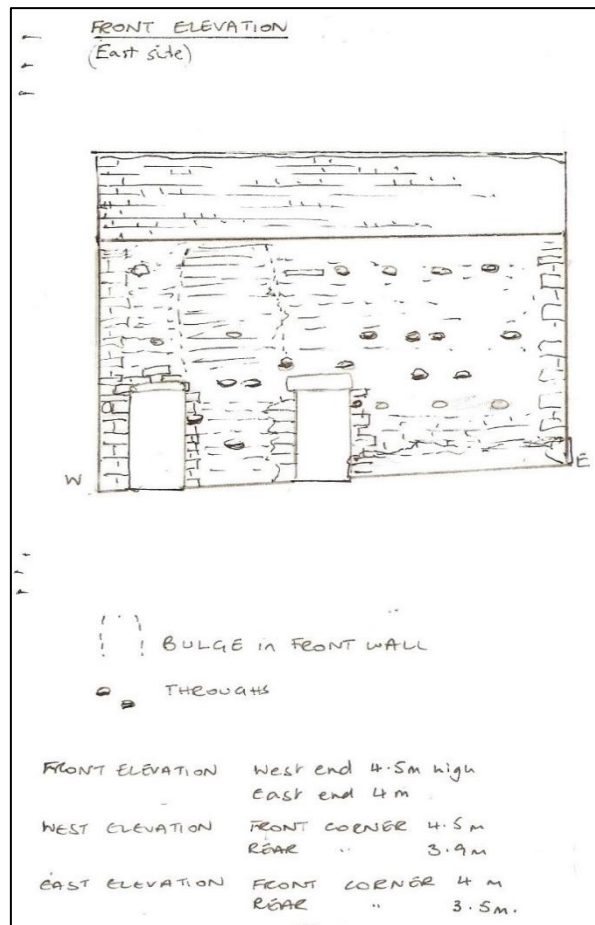


Fig. 10.17 Thorns 6, east (front) elevation, 8m long

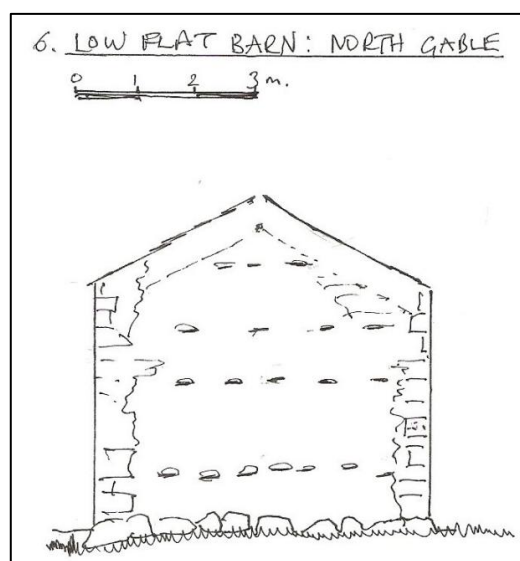


Fig. 10.18 Thorns 6, north gable

The west side, which is uphill, has two rectangular hay forking holes reached from the higher ground. The south forking hole filled the hay baulks over the shippon and the north forking hole the hay mew. The high ground would have allowed hay to be easily forked from a hay-sled. The ground seems too rough for wheeled vehicles. There is a small plinth, which reappears on the low south gable, and the large quoins are mostly of limestone but two middle ones are of sandstone. The blocked vents seen inside the mew are not seen outside and have been filled in.

Interior detail

The single roof truss is made from sawn softwood (Fig. 10.19). It is a nineteenth-century suspension-bolted kingpost truss. There are two braces connecting kingpost and principal rafter. On the north face can be seen the carpenter's assembly marks on the kingpost and brace. The trusses would have been made in a carpenter's workshop then dismantled and brought to the barn. The assembly marks identified the right and left components when the pieces were fitted together on site.

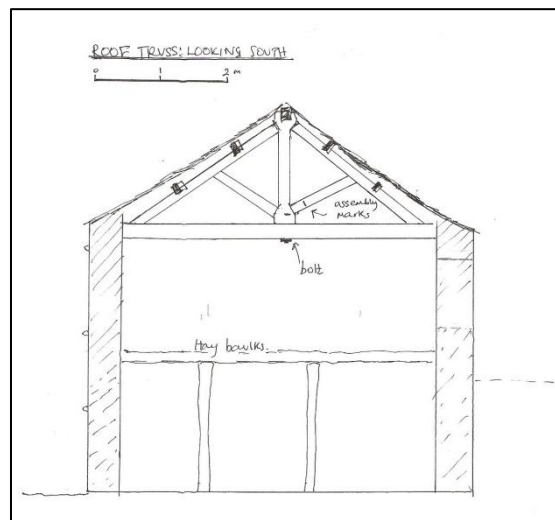


Fig. 10.19 Thorns 6, roof truss

There is no visible owl hole in the gable but the north wall appears to have blocked-in ventilator holes in the hay mew.

The shippon timbers originally had black slate boskins (possibly Horton flag) but only one remains. Much of the skellbuse (timber screen along the foddergang) has gone. Assorted pieces of timber and iron form the hayloft including iron rails, possibly from a bedstead. The shippon retains its divisions with standings for four cows in double stalls and one narrow stall.

Dating and interpretation

The plinth which includes some boulders and is seen on the north gable could indicate the footprint of an earlier structure or the rebuilding of another structure. Field barns date from the later sixteenth century, after Dissolution, and here the barn is in one of the former meadows or fields named only as 'Thorns' on the OS map of 1846-48. The field walls, however, are rather straight which might suggest eighteenth-century improvements and intensification of farming. The barn has many wall cracks and signs of rebuilding but the

dateable features indicate that the barn was in use or repaired c. 1830 when the bolted roof truss was added. Other features like walling appear in the eighteenth century. The barn was probably built by farmers as there is no real mason's work. Areas of walling with no rendering seem to indicate modern consolidation repairs as seen in the north gable. Stonier render, weathered into small bubble-like patches, is seen here and on many walls in Thorns and may have been produced from the nearby lime kiln. The use of railway sleepers for boskin posts could be connected with the Settle-Carlisle line, completed in 1876, when construction equipment was sold off. Perhaps by that time the barn was used for housing wethers, and sheep had become more important.

At 6 x 8.3m, and with a two-door plan, the barn is typical of many in the Yorkshire Dales in the eighteenth century but it is the smallest of the field barns in Thorns, housing only four or five cows.

Extensions or alteration

Rebuilding c. 1830 with new roof truss. Within recent decades it was only used as a shelter for sheep though perhaps in the late nineteenth century it reflected the latter stages of the boom in cow-keeping.

Setting

Orientation and site

The barn frontage faces east and is built on a slope, in one of the irregularly-shaped meadow closes formerly just called 'Thorns'. The shippon, and mucking-out hole, were built in the usual manner at the lower end. There was no sign of a water supply, essential for overwintering the cows.

No date-stone is visible.

Building name: High Flat Barn

Survey number: Thorns 7

HER number: MYD 24500

NGR: SD78018 79322

Recorded by: ACA, LH, DW, MWi, MWo

TFB number: HOR 164

Record date: 28 July and 8 Aug 2016

Report and drawings: Alison C Armstrong

Detailed description

Setting: Orientation and site

High Flat Barn is a ruin with its gable built into a later field wall. Only part of the wall still stands, up to 1.4m in height. The rest is an earthwork bank of grass on stones (Fig. 10.20) which is adjacent to a holloway and gateway, cutting through the field wall.

The field wall now attached to two sides of the barn makes a reverse-S shape. Part of its course runs on an earlier prominent curving earthwork bank, probably monastic/medieval in origin, and the barn wall must post date the earlier bank but pre date the stone field wall. A tree shown on the 1893 OS map suggests there may have been a hedge on the bank/field wall part of the boundary. The barn may have been built when the bank boundary was still in use and stood alone in a field.

On the map of 1846-48 the building appears to be shown as roofless and a ruin.

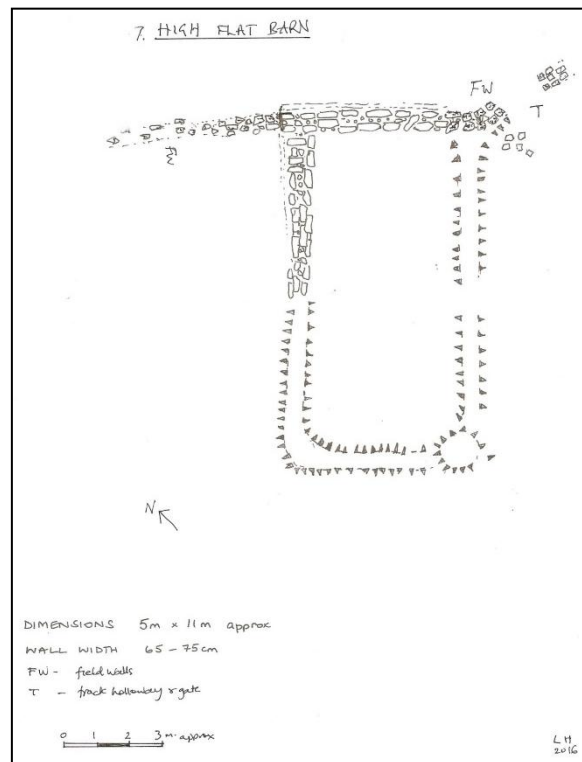


Fig. 10.20 Thorns 7, plan

Building type and purpose

Barn, probably of two bays.

Only the north corner of walling is still standing (Figs. 10.21 and 10.22).

Materials

One corner of the barn wall remains. It has well-coursed, squared limestone walling stones on the inner and outer wall sides. The two outer walls retain a prominent double-stepped plinth and a battered wall above.

Where cross-sections of the wall can be seen, they are up to 880mm wide and of rather blocky limestone laid in good level courses. There is no sign of real dressed stone except for one large sandstone quoin. There is a similar large corner stone at Thorns 2, the ruined building by Trackway 1, in Thorns itself. The wall section exhibits facing stones that have a tail pointing into the wall centre, where there is a mass of small filling stones. This was a normal wall-building technique.

The field wall that abuts the standing remains is of later date and includes boulders and cobbles from field clearance. There is also a pile of mixed stone near the gateway that may be demolition remains; it includes some boulders.

Exterior detail

The earthwork beyond the standing walling indicates a building c. 11 x 5m, of two bays, which is the size of many field barns, including those in Thorns. However, the OS map of 1846-48 shows a building of square proportion built into the field wall. Possibly this is because the surveyors only mapped the stone structure, not its continuation as an earthwork.

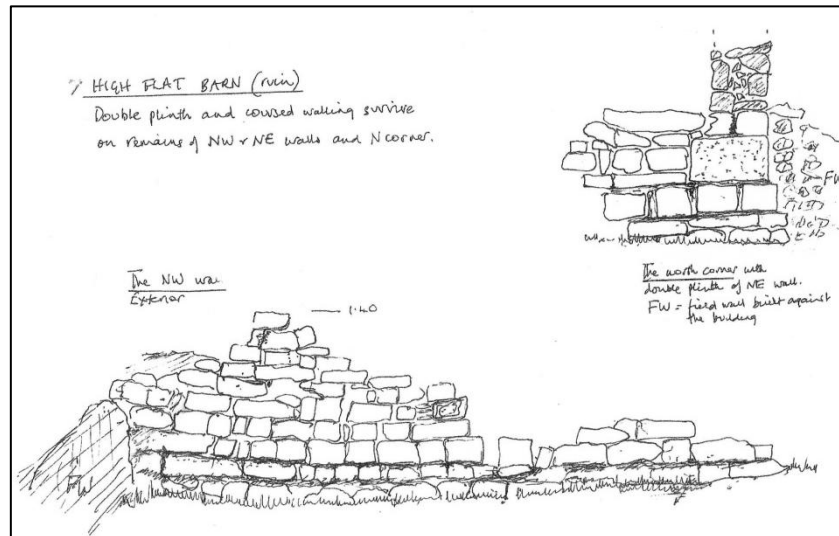


Fig. 10.21 Thorns 7, detail of wall and plinth

This building is very well constructed and unusual in having a prominent exterior double-stepped plinth and good wall-coursing to a thick and slightly battered wall. The double plinth on the north-west exterior side changes to a lower level on the low gable end. The wall corner still standing has quoins the same size as the wall courses, which is often seen on sixteenth-century walling. There is one very large, dark, well-cut sandstone quoin incorporated and this was possibly reused. Plinths of various sorts are seen in other buildings in Thorns.



Fig. 10.22 Thorns 7, detail of double plinth (Lynda Hutchins)

Interior detail

The interior standing walling is of limestone rubble but less evenly coursed than the exterior. A section across the fallen north-west wall shows there are some through-stones but they do not project significantly. There is no evidence of openings in the wall. A dip in the ground in the middle of the south-east wall area may mark a doorway into a field barn. There is no evidence for cruck padstones although there is a mound on the south corner which might mark one.

Grass cover prevented any opportunity to look for evidence of roofing materials.

Interpretation and dating

The building seems to be of one build, with standing masonry and earthworks indicating a two-bay building about 11 x 5m, the size of many field barns. There are no clearance boulders in the masonry but ploughing was not a part of the cow and hay-production cycle of post-monastic times.

The unusual neat masonry, thick battered walls, small quoins (that are the same size as the wall courses) and the double plinth suggest a very well-made building of 1600 or earlier. A barn recorded at Low Birkwith (YVBSG 1996) is the same size, has a similar unusual double-stepped plinth,¹⁸ steep roofline, low eaves, a padstone, re-used cruck timber and the same well-coursed rubble walling. This is likely to be sixteenth century and perhaps monastic. It is curious that a single, well-squared and dressed sandstone slab is used in the old wall here as at the ruined building by Trackway 1 in Thorns. They may be reused from the same building.

That purpose built field barns (also called 'field houses') were in use in the Dales c. 1600 is confirmed in a survey of Kettlewell c. 1608 and in a survey c. 1605 in Grassington.

Surviving field barns are mostly of two-door plan with a separate shippon door and mew door, but the central one-door field barn plan (as this could be) is known and still had a mew and shippon. The cows, however, were stalled facing the gable and fed from behind so it was not a good plan. Any central cruck truss might interfere with the only access door but in Cumbrian cruck barns there are examples of central doors.

The building clearly predates the stone field wall that was built against its gable when field boundaries were later changed. These field walls are rather triangular in profile with a wide base and not very high. This would keep cows from wandering but not sheep. The gable wall seems to have been largely demolished before the field wall, with its field gateway, was built against the barn. To the west, above the barn, the field wall lies on top of the earlier bank and ditch boundary, probably monastic, and part of an earlier field arrangement. The barn must have stood alone when this old bank boundary was still in use. An excavation of the barn floor and foundations might yield more information about roofing materials, padstones, form of the plinth and plan of the building.

¹⁸ Along the north wall the lower plinth is 220mm high and 170mm wide, the upper plinth 130mm high and 130mm wide.

Extensions or alteration

The building was a ruin by 1846-48. Its demolished gable had already become part of a new stone field wall which saved on building a few metres of new field boundary wall.

Documentation

On the 1846-48 OS map the barn is shown as just an outline shape against the field wall and is labelled 'High Flat Barn (Ruins)'. On the OS maps of 1893 and 1909 the barn was omitted altogether and only the field wall is shown.

There is no visible date-stone.

Note

This barn was subjected to excavation in September 2017 – see Chapter 12.3 for full details.

Building name: Back Hools Barn

Survey number: Thorns 8

HER number: MYD 56209

NGR: SD7844 7900

Recorded by: ACA, DJ, MWO

TFB number: HOR 46

Survey date: 8 August 2016

Report and drawings: Alison C Armstrong

Building type/purpose

Large field barn with three-door gable-end entry into a double shippin (Fig. 10.23).

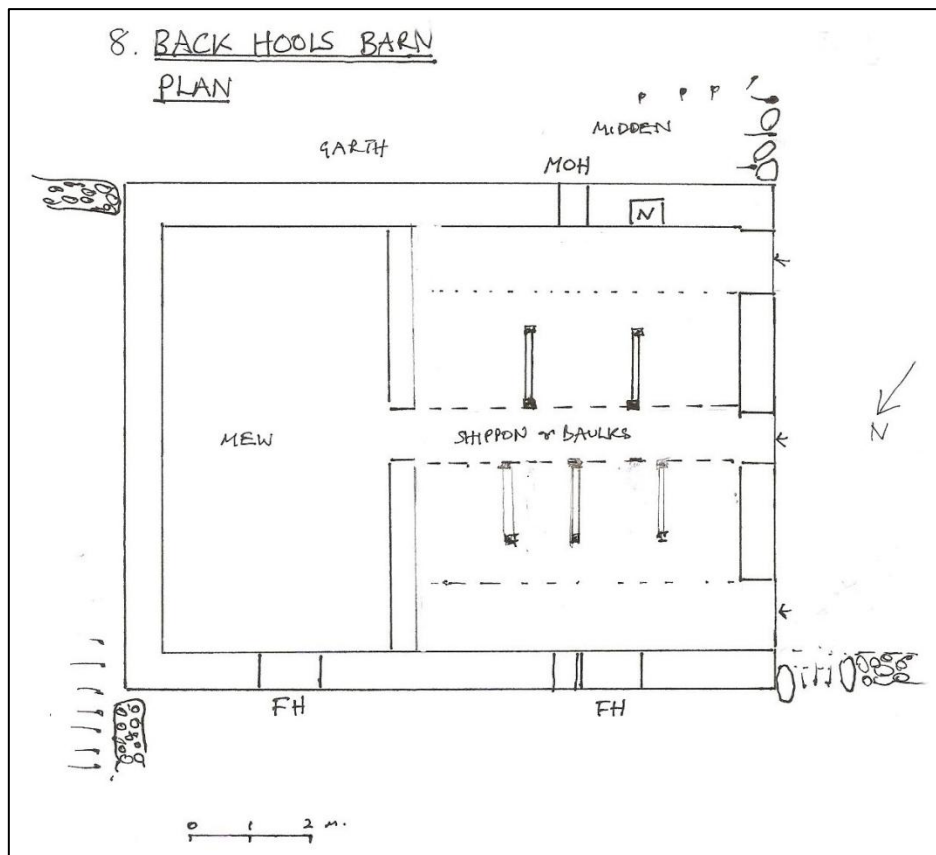


Fig. 10.23 Thorns 8, plan

Materials

Local geology is reflected in the stone materials used in this barn. Stone for the walls is of pale grey limestone blocks that outcrop locally and also brown sandstone cobbles and boulders from glacial deposits. The walling is all slightly watershot typical of the early nineteenth century. The dressed stone used for the door lintels and quoins is a coarse gritstone.

The roof coping stones are of sandstone flags each cut with a raised ridge to the stone. This seems an unusual detail in the area and may be due to building by gentry owners rather than tenant farmers.

Roofing slates include some pale greenish slates, perhaps from an earlier phase, but mostly dark grey slates. These show wavy lines of former bedding planes within the rock and resemble 'Burlington slates'. Local dark 'Horton slate' flags were used for the water trough in the garth yard. The trough is of the type with the stone slabs bolted together with iron bars and sealed with leaded joints. There is a similar trough at the Thorns bank barn (Thorns 10) and other places locally. Similar dark grey slate slabs (Horton flags) were traditionally used for boskin panels. These slate slabs were widely used in Ribblesdale shippons and in Thorns in the cart-arch field barn (Thorns 9) and Low Flat Barn (Thorns 6). The barn has no through-stones but thin bands of Horton-type slates seem to have been used instead.

Clay drainage pipes, of circular profile, were used for ventilation holes in the mew and hay baulks as seen elsewhere in the Dales.

Timber for interior use is mostly sawn softwood, that is for the iron-bolted roof trusses and sawn and pegged shippon stalls which would have been made by local carpenters. In Craven, well-made shippon timber with chamfers and stops is the usual carpentry standard. The carpenter's assembly marks are hidden inside the joints here. This softwood is probably from the Baltic. Typical Baltic 'shipping marks' in Cyrillic script were also seen in the roof of the cart-arch field barn (Thorns 9), and one timber in Back Hools Barn, lying on the ground, was engraved with similar markings resembling 'M' and 'W'. 'W' symbols also make up apotropaic marks on pre seventeenth-century timber, but are unlikely here. There is, however, some reused and sawn-up waney timber, possibly oak, used as lintels in openings in the wall. This timber retains redundant pegholes but is much rotted by damp and is difficult to interpret. No clear mortices or tenons survive to ascertain what kind of structure these timbers were from. Such reused timber may have been due to a shortage of suitable timber, or just for economy. It is unknown if it was collected from local old buildings or from a wider area, such as seems to have happened in Skipton in the eighteenth century, before the canal arrived in 1777. More timber needs to be examined.

Exterior detail

The north elevation

The rock-faced quoins are apparent (Fig. 10.24). The wall openings include two hay forking holes elaborated with impost blocks in the stone surrounds. This is a classical feature typical of c. 1800 and the early nineteenth century. Clay drainpipes along the eaves provided ventilation holes required in any hay mew or hayloft. A small opening in the shippon may have been a mucking-out hole or just a window. Drain pipes and gutter brackets along the

eaves and down the right (east) gable suggest water was collected and perhaps flowed into a trough at the wall west corner. There are also large stones in the ground here as if steps once allowed easy access from this north side to the gable through an opening in the fold yard wall.

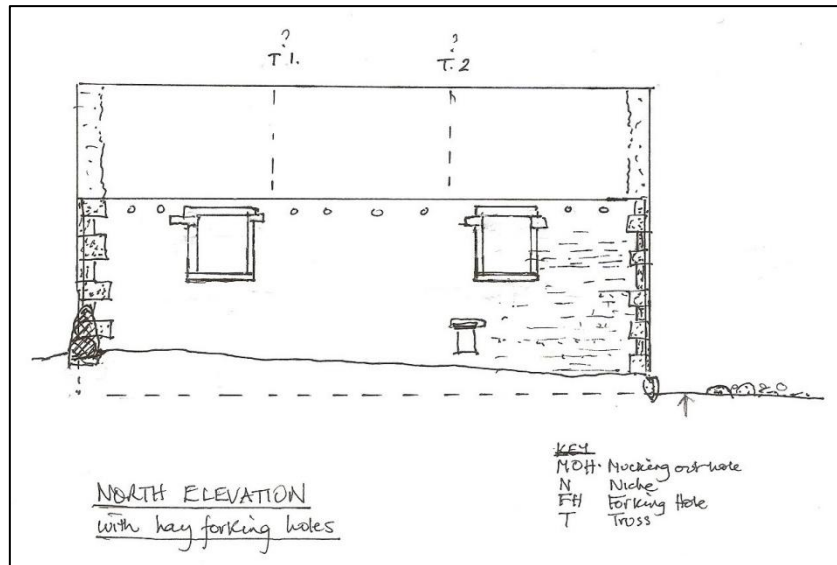


Fig. 10.24 Thorns 8, north elevation, 11m long

Figure 10.23 shows the typical field barn plan with a hay mew and a shippon with hay baulks above. Here, however, a wide gable with central foddergang has standings for about twelve cows.

The south elevation

This shows the same pattern of clay vents along the eaves and in the hay mew area (Fig. 10.25). There are large dressed quoins but these are rougher on the right (east) gable. The only opening is the mucking-out hole which has, below it, a depression in the ground for the midden. Manure that accumulated over winter was a vital ingredient of the field barn regime of cow keeping and grass growing and would have been spread on the meadow in spring. The sandstone coping stones remain on the roof edge.

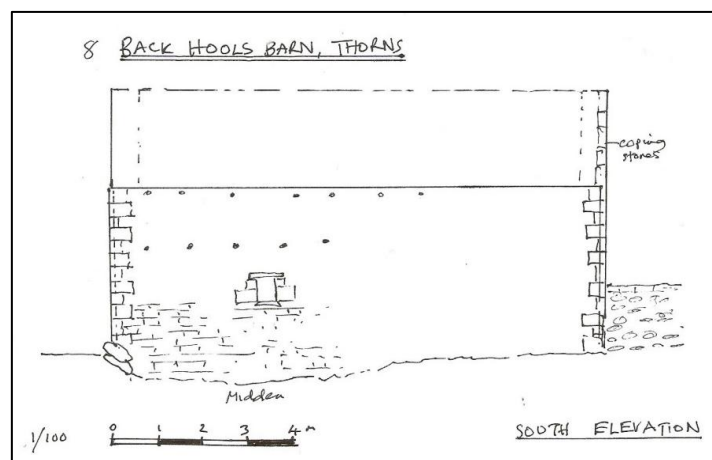


Fig. 10.25 Thorns 8, south elevation

The west gable

Graffiti scratched around the south door include the letter 'F' and a possible panel of initials near it (perhaps F for Farrer, estate owners from 1824). There is an incised star-like motif too. There are two arrow-like images which may depict sailing ships (as seen at Lodge Hall) or even later attempts to copy OS benchmark symbols. Each quoin has a narrow, tooled margin edge with the rest of the stone dressed with a 'rock-faced' surface. This style became very common for railway bridges and stations in the nineteenth century but began in the eighteenth century for rusticated masonry fashionable in grottos and classical gentry houses from 1730-1850. Each doorway here has a narrow chamfer on the inner side of the opening as well as a tooled margin. The gable wall shows two lines of slaty stone, rather than the usual projecting through-stones, to bring the walling to course. Although the roof has fallen in, the sandstone coping stones with their unusual ridged tops are still seen on the roof, protecting the wall cavity.

This wall has the main entry to the barn (Fig. 10.26).

The symmetrical and rather impressive three-door-plan facade is typical of very wide barns of late date (nineteenth century). These barns still retain the centuries-old traditional shippon and mew. At the shippon end, the central doorway gives access to the axial foddergang between the two rows of boskins and to the hay mew beyond. The right and left doorways lead into the shippons (cow byres) with their standings for six cows on each side of the central foddergang. The dressed stonework of quoins and doorheads is unusually elaborate and made of gritstone (coarse pebbly sandstone.)

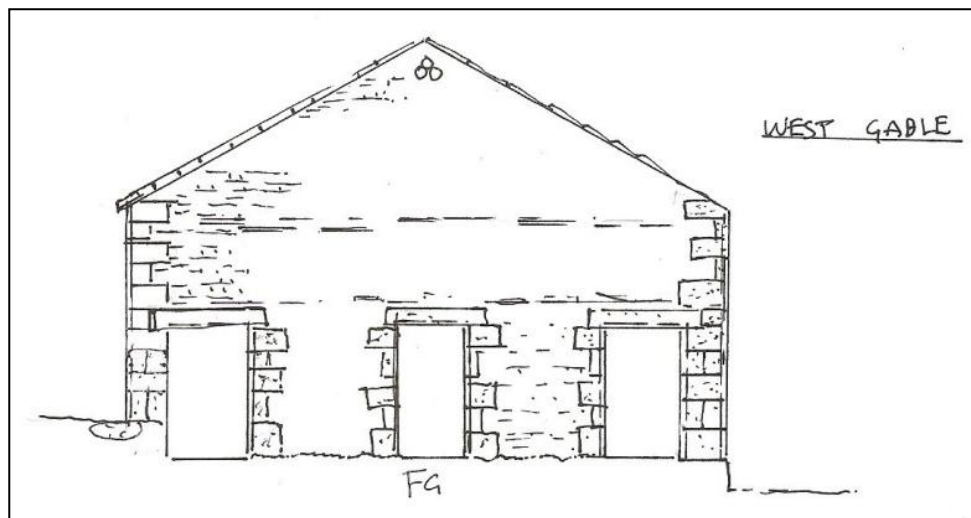


Fig. 10.26 Thorns 8, west gable, 9m wide

The east gable

This back wall ceased to be seen once the holloway on its east gable was closed and moved. There are three lines of slaty rock to bring the walling up to course (Fig. 10.27). Near the eaves line can be seen possible blocked-in ventilator squares, now infilled with boulders, and on the apex are clay ventilator pipes. Both corners have the same rock-faced and margin-dressed quoins but of different and rougher character from those on the front perhaps made by another mason or by apprentices.

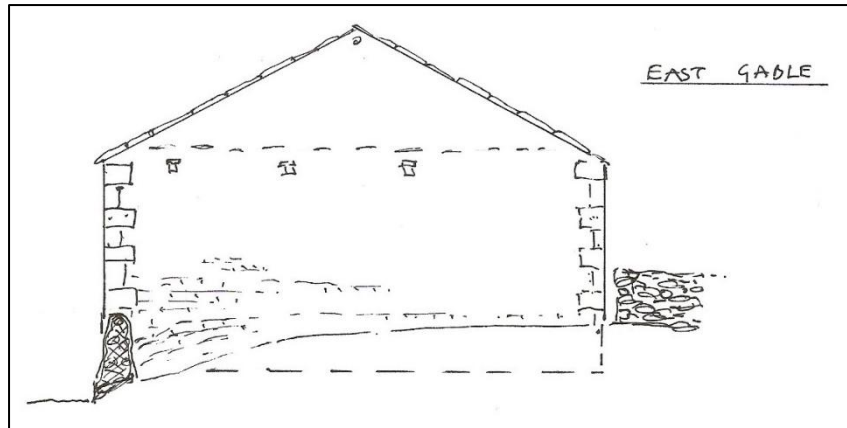


Fig. 10.27 Thorns 8, east gable, 9m wide

Interior detail

A stone wall rather than the traditional timber skellbuse separates the hay mew from the shippon as in the bank barn (Thorns 10) but it is not bonded to the side walls and may be a replacement of a timber partition. It would certainly have strengthened the large hay baulks above the shippon. The floor surface is earthen in the mew, laid with six large Helwith Bridge blue flags in the foddergang, and concreted and cobbled in the shippons. The softwood shippon timbers are well-made with chamfers and stop edges. Carpenters' assembly marks in Roman numerals and dots are hidden inside the joints. The boskins and foddergang are of timber with Horton flag in local style and they housed fourteen cows in double stalls. A candle niche is seen near the doorway in the south wall of the shippon.

The timber lintels of all the wall openings seem to be made of reused oak, some of which are now lying on the ground. Their rotten state makes interpretation difficult but there are pegholes for tenons but no obvious cruck halvings are seen.

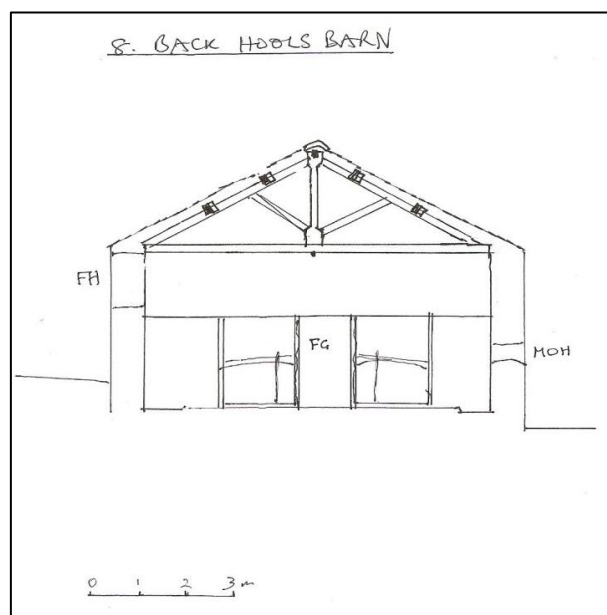


Fig. 10.28 Thorns 8, interior and roof truss

The jumble of fallen roof timbers includes remains of one bolted kingpost roof truss with braces from tie beam to principal rafter, all of imported softwood (Fig. 10.28). This truss style is similar to others in Thorns such as the smaller field barns of Low Flat Barn (Thorns 6) and the cart-arch barn (Thorns 9). One timber fragment, possibly a rafter, has 'M' and 'W' engravings in Cyrillic script, as seen on Baltic timber rafters in the cart-arch barn at Thorns. The hay baulks retain their floor of wide timber planks of pre-1850 date. There are a number of hand-made square six-inch nails amongst the hay baulks that perhaps held the floor timbers together.

Interpretation and dating

The barn is of one build with the long 11m axis following the contour thus giving level gable entries on the west side to the shippon and mew. The site allowed hay forking holes on the uphill (north) side, providing easy access for forking loose hay from a sled/wagon into the hay baulks and mew. Downhill is the garth or fold yard with the midden site below the mucking-out hole. There is a nineteenth-century slate trough in the garth for watering the cows in winter.

This is the second biggest barn in Thorns after the bank barn. It has the same nineteenth-century roof trusses and double shippon but its stonework is unusual in the area with slate courses rather than through-stones and very architectural margin-dressed gritstone quoins that may reflect new gentry owners in the nineteenth century. This rustication of stonework is usually seen c. 1730-1850 in Ribblesdale and became a common feature of railway stonework in Craven, such as for stations and bridges. As in many barns in the Dales the shippon, below the hay baulks, has well-made timber boskins and skellbuse constructed by local carpenters of imported softwood timber that is nicely chamfered with joints pegged. It might be useful to look for graffiti on these timbers or the use of ruddle chalk for scribing out the joints.

The two roof trusses have fallen but the bolted joints and remaining timbers indicate kingpost trusses with struts from the kingpost to principal rafter. Some incised 'M' lines on the timber could be Baltic shipping marks, also seen in the cart-arch barn (Thorns 9). Similar bolted roof trusses are seen in Low Flat Barn (Thorns 6) and the bank barn (Thorns 10) where the latter has shippon timbers dated 1837. A bolted roof truss in Kilnsey is dated 1840.

Extensions or alterations

Historical mapping shows that the adjacent north-south track on the east of the barn was moved to the western side at some point.

Setting

Orientation and site

The barn is built in its meadow closes and lies at the eastern edge of a sloping former meadow which from the air shows drainage ditches. The barn is on the south-facing slope of Back Hools Hill adjacent to the rushy enclosure of Thorns Moss on the east. The field is one of several straight-walled meadows (possibly eighteenth century) making up a field group historically named only as 'Thorns' and which may have been south-east of the earlier monastic fields. By 1846-48 the barn had a smaller garth and was west of a holloway,

running south-east from Thorns hamlet. The road ran on the east side of the meadow wall. It may be significant that a lime kiln, not far away to the south-east, would have been important for improving the field close. By 1893 the section of holloway track had been moved. It crossed into the enlarged garth (nowadays by a stone stile) and continued on the west side of the meadow wall. The lime kiln on this road was out of use by then. Although now infested with rushes, some meadow grasses still survive as evidence of former field management. As in much of the Dales, horse-drawn sleds rather than wheeled wagons or carts were probably used for the hay harvest and for mucking. The three houses at Thorns and the cart barn (Thorns 9) have evidence of cart sheds.

The barn entrances are all in the level west gable. The muck midden is placed on the low, south elevation. The hay forking holes are on the uphill elevation allowing easy access for forking loose hay from a sled pulled by a horse or pony.

A water trough of Horton flag (Fig. 10.29), used for watering the cows each day in the long winter months, remains in the garth. It was fed through an extant narrow cast-iron pipe from a spring on the east side of the meadow wall. The trough is made of five sawn flags held together by fitting into grooves and with iron rods screwed to fit. The trough corners were sealed with lead. This 'flat-pack' assembly meant such troughs were easily transported. The remains of iron gutters and wall brackets on the barn with pipes apparently going into the ground on the north-west corner suggest some rain water was also collected, perhaps in cisterns made from Horton flag.



Fig. 10.29 Thorns 8, water trough (Mark Woronowski)

Carvings and date-stones

An 'F' is carved into a door jamb by a shippon door. An eight-pointed cross or star may be an apotropaic symbol or just a doodle by a craftsman such as a mason (Fig. 10.30).



Fig. 10.30 Thorns 8, eight-sided star (Mark Woronowski)

Two arrow-like carvings with an indented hole above that resemble an OS benchmark but might be sailing ships (Fig. 10.31). (Other carvings of ships are seen at elsewhere in Upper Ribblesdale.)



Fig. 10.31 Thorns 8, arrow-like carving (Mark Woronowski)

Building name: Field Barn with added Cart Shed/later Hogghouse

Survey number: Thorns 9

HER number: MYD 58523

TFB number: HOR 43

NGR: SD78181 79445

Record date: 23 June 2016

Recorders: ACA, FL, SH, MK, ML, GN, DW, MWO

Report/drawings: Alison C Armstrong

Setting and orientation

The barn faces south and lies along the contour at the northern edge of a walled field close that was probably its hay meadow. Three field walls terminate at the barn but the north-south wall seems the oldest. On the east there was a trackway running from Trackway 6, the main walled lane through the settlement, to the east end of the barn. The small walled garth on the south side has lost much of its walling but it allowed the watering of the cows and mucking out in winter. There is no sign now of a water supply in the garth.

Description

Plan form

Traditional three-bay field barn plan with shippon and mew (Fig. 10.32). Mucking out was through the shippon door and the original midden may have been the saucer-shaped depression near the door. Another bay, with a paved floor and loft over, was added, perhaps to house a cart and pony. Its level gable entry met with the trackway.

Building type

This is another two-door-plan field barn, common in the Dales. There are other examples in Thorns, as described above. The barn was extended by one bay to create a paved shed, perhaps with ventilated loft above.

The barn was used to overwinter six cows, fed on hay cut from adjacent meadows and piled loose in the mew and the hayloft over the shippons. Hay sleds were probably used to reach the hay forking hole from higher ground at the rear.

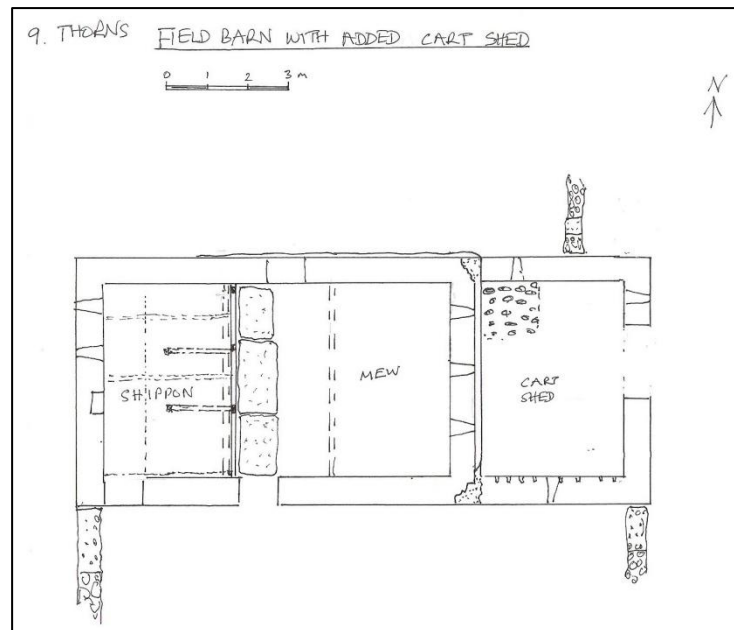


Fig. 10.32 Thorns 9, plan

Materials

The use of pale weathered limestone dominates in the walling but brown sandstone boulders from glacial till were roughly dressed and used to a greater extent than in other buildings at Thorns. There are few field cobbles although they do feature in field walls. The limestone rubble resembles outcrops in the adjacent field. The stonework for the added fourth bay is notably 'watershot', that is, laid with each stone having its top projecting beyond the base of the stone. This helped to shed water. The large quoins and doorheads are of split or hammer-dressed ganister-like sandstones (possibly from Upper Carboniferous sandstone erratics). One quoin retains fossil ripple marks indicating its sedimentary origins, perhaps from Yoredale strata nearby. The ridge stones are all of grey sandstone and dressed to an inverse V-shaped profile, to cover the ridge in the usual manner. The stone source might be Studfold Sandstone, quarried at Helwith Bridge. Sandstone flags form the roofing (as on the bank barn) and may also be Studfold stone. Large, dark-grey 'Horton flags' make up the boskin panels and the foddergang floor.

Structural timber includes imported Baltic softwood with shipping marks and some very weathered re-used oak which is waney and knotted and includes former pegholes. This looks like local timber and is of poor quality so perhaps is from post-monastic times.

Exterior features

The south frontage (Fig. 10.33) shows three bays of a field barn with an added fourth bay which was probably for housing a cart with stable. The frontage has large sandstone quoins and two doorways, to the shippon and the mew, each with sandstone lintels and jambs. Thin slabs above the lintels make hood moulds to stop rain getting in. The added east bay shows a ragged vertical joint and beyond that a change in the rubble stonework to better coursed and watershot masonry. The wavy joint is probably due to the old quoins being pulled out so they could be re-used on the new gable. The projecting through-stones are not at the same heights as those of the barn, further indicating the end bay has been added.

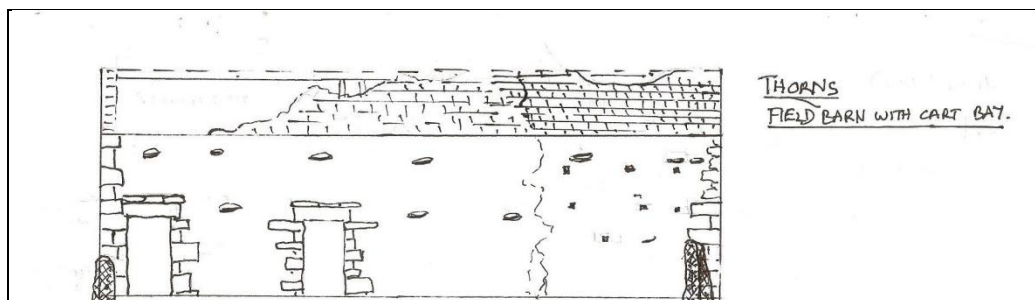


Fig. 10.33 Thorns 9, front (south) elevation, 14m long

The rear (north) of the barn (Fig. 10.34) also shows the same ragged joint of the added bay. The older barn has remains of a plinth which stops at the added bay. The upper level of through-stones on the older barn also stops at the joint. The hay forking hole has lintel and sill stones and rough quoins. The higher land at the rear would have allowed easy access for forking hay from a sled. A wheeled vehicle may have struggled.

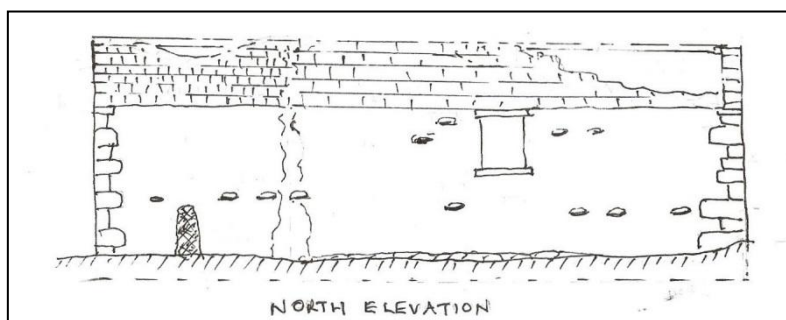


Fig. 10.34 Thorns 9, rear (north) elevation, 14m long

The east gable (Fig. 10.35) has three prominent rows of through-stones and an arched cart entry with sandstone voussoirs. A change in the walling above the arch suggests the wall was all rebuilt above the inserted arch. This could indicate there was already an opening before the arch was inserted. A carpenter's timber centring would have been needed to hold up the archway until its keystone was in place. The arched entry has a natural curved timber lintel (possibly pale ash wood) with mortices which once held a pair of doors, and there is a hole for a bolt in the centre. Possibly a pony was stabled here with a 'Jacobs ladder' for access to the loft and hay storage. Two projecting stones in the cart-arch jambs may have limited the outward swing of the doors. Ventilators to the loft are best seen from inside as they are blocked outside.

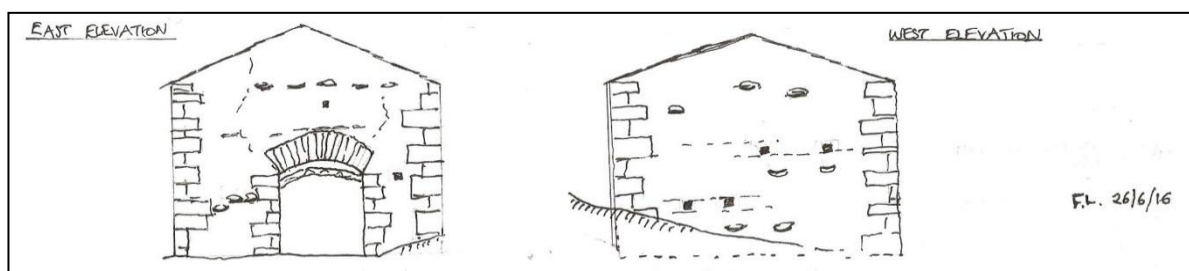


Fig. 10.35 Thorns 9, east and west gables, 6.5m wide

The west gable (see Figure 10.35) has a row of square ventilator holes for the hayloft over the shippon. Through-stones project from the rubble walling which has roughly-shaped sandstone quoins. The contrast of pale limestone and darker sandstone is particularly notable and reflects the sources of stone available locally.

Interior features

Field barn

The shippon door (on the left/west) gave access to the shippon with its timber and slate boskins which still show standings for six cows in double stalls. There is a candle niche inside the doorway for dark winter days. The boskins have a mixture of timber and there was a hayloft overhead. The softwood was well-finished with chamfered edges and chamfer stops but the timbers are now rotting. One timber has a row of close-set holes about 50mm apart but it is unclear what this is from (possibly a handloom weaver's warping frame).

The two roof trusses (Fig. 10.36) have principal rafters of sawn softwood pegged together at the apex in traditional form. These would have been made at a carpenter's workshop and brought to the site. Carpenter's assembly marks can be seen as a Roman I and II on the upper joints. Some softwood rafters display remnants of inscribed Baltic 'cargo marks' or 'shipping marks' in Cyrillic script, showing that the timber came from the east and was perhaps imported from the Baltic via Hull or Lancaster and the Leeds-Liverpool Canal, which reached Skipton in 1777. (One of this survey's recorders [DW] reads Cyrillic script and interpreted the letters as possibly equivalent to 'G' and 'H' in Roman letters.) The tie beams are reused oak and not softwood, possibly to save costs.

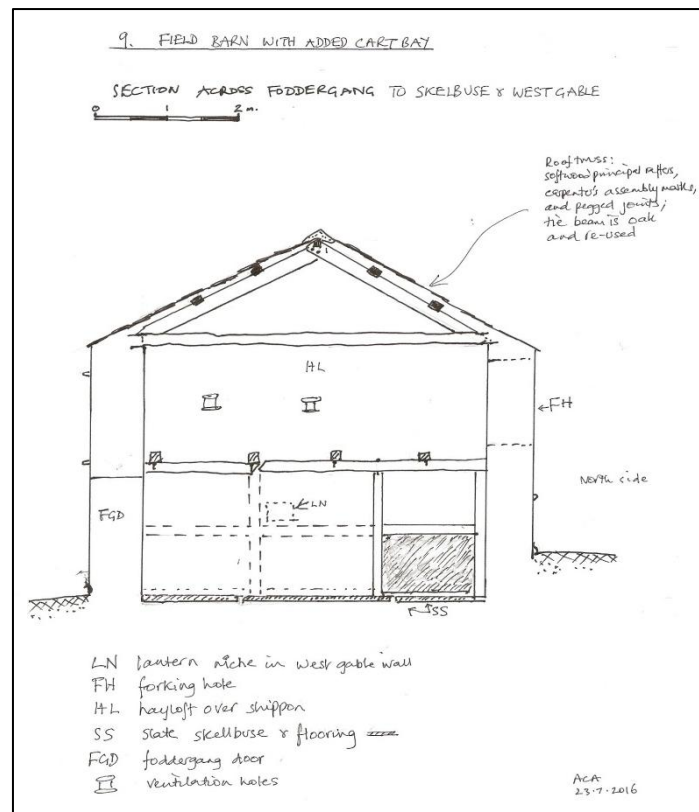


Fig. 10.36 Thorns 9, interior and roof truss

Cart shed

This additional bay has a paved floor of small irregular flags, clearly paved in the north-west corner, perhaps marking a stall for a pony. The cross-wall is the former gable of the field barn and retains the exterior low plinth of the older barn, also seen at the rear. The field barn plinth is of two good courses of sandstone which contrast with the rubble walling above. Two rows of ventilator holes of the adjacent former hay mew remain. They are at different heights from the vents in the added bay. Two larger and rougher holes may have been for timbers that supported the loft. The south wall of the addition has two rows of ventilators for a hayloft and some ten holes for close-set hayloft timbers. The north wall also shows holes for the large timbers of a hayloft. Perhaps the hayloft was not continuous but supported on a post with a stair up.

Interpretation and dating

This three-bay field barn with Baltic timber roofing was probably built in the late eighteenth century at a time of agricultural improvement and expansion. Six cows could have been overwintered fed on hay from the surrounding meadows stacked in the hayloft over the shippin and in the two bays of the hay mew with its ventilator slits. About one acre of hay meadow was required to keep one cow over winter, so about 6 acres (2.4ha) of meadow would be needed here. Possibly the cows spent the summer on nearby Capnut Pasture or High Malley while the meadow grasslands were left to grow.

The stonework is basic with roughly-dressed, poorly-coursed rubble, probably built by the then farmer. Grey Horton flags, rather than timber, were used for the boskin panels, in local style. The timber trusses were probably made by a local carpenter using a mix of new and old timber with traditional pegging. They are the only surviving trusses that date from before bolted kingposts (c. 1840) and they are seen in a number of buildings at Thorns. In the early nineteenth century the cart shed was added with its watershed walls, like those of the added dairy to the farmhouse nearby and the later wash-house. This seems to have been a boom time of dairy cows, meadow hay, butter and cheese-making and a farming regime that had survived from the later sixteenth century.

There are no visible date-stones.

Building name: the Bank Barn (a six-bay barn with added stable, long outshut shippin, and porch).

Survey number: Thorns 10

HER number: MYD 58524

NGR: SD78197 79374

Recorders: ACA, DJ, CO

TFB number: HOR 44

Record date: 25 July 2016

Report and drawings: Alison C Armstrong

Setting and orientation

The bank barn is close to the south side of the hamlet of Thorns with the nineteenth-century wash-house and the farmhouse nearby. Cart-entry barns, with the cart entrance on the first floor into the hayloft, are not common in Yorkshire. Here, the first floor entry is on the south-east side (called south here) facing away from the hamlet. The north-west-facing side (called north here) has ground-floor entries to the shippins and stable and faces the dwelling house and hamlet which lie across the walled lane (Trackway no. 6).

Documented history

Thorns hamlet was abandoned before 1891 so the bank barn (of 1835-1837) represents the final fifty years of farming boom here. (See Chapter 13 for historical detail.)

Building type

This is a five-bay barn, with added stable and further added shippon, for overwintering cows with hay fodder stored in the mews and hay baulks. The oldest part is the early nineteenth-century, five-bay, rectangular bank barn which once had standings at the west end for fourteen cows and at the east end, long since dismantled, for six cows (Fig. 10.37). There was a hay mew in the central area as well as on the hay floors over the shippons. Added to the bank barn was a porch to the cart-entry hayloft on the south side, a large stable on the east gable end and a long outshut shippon for fourteen cows on the north side.

Materials

The quoins are mostly of sandstone roughly squared. Walling is of mixed local materials, as seen in all the buildings at Thorns, with rough blocks of limestone probably from local outcrops but some cobbles of sandstone from glacial clay soils. A particularly large sandstone boulder is placed in the centre of the south wall. Roofing is of sandstone flags. A traditional cobbled surface of river pebbles lines the cart-entry floor. There is some timber reused as lintels which looks like ash wood, not oak, probably from the local area.

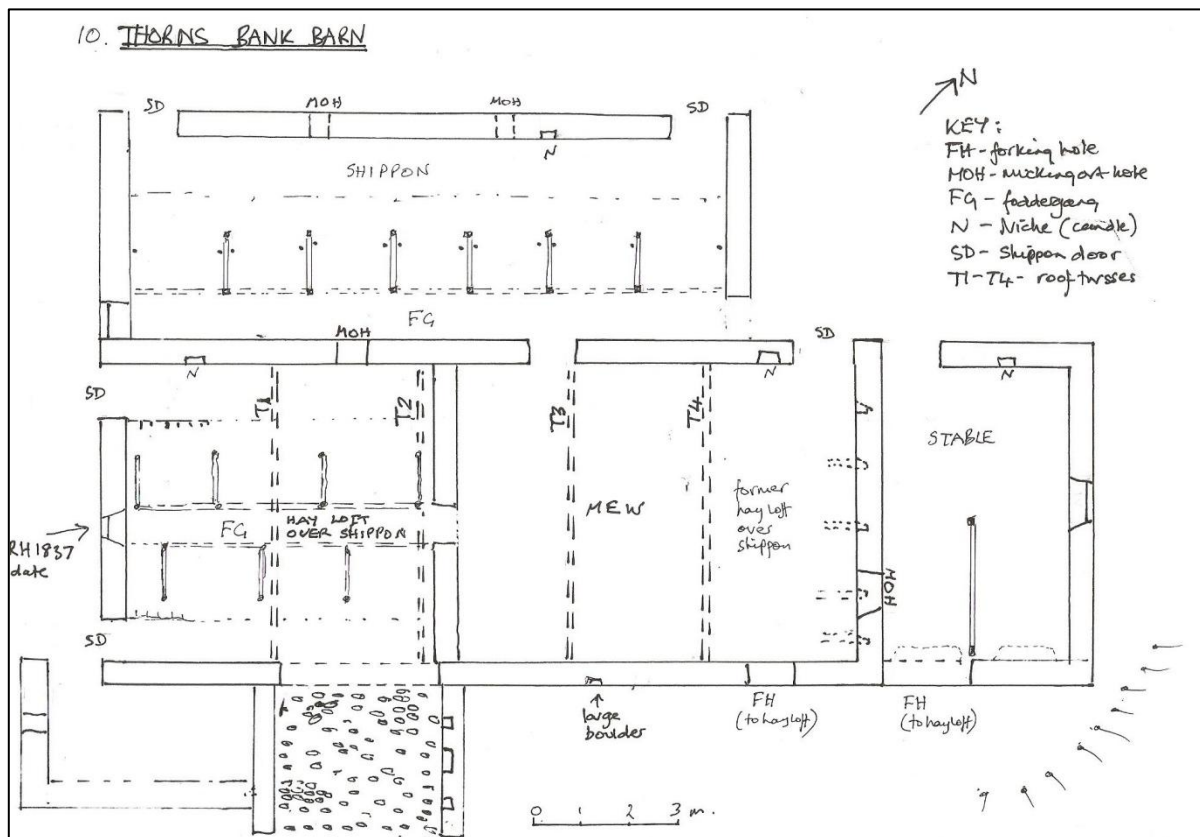


Fig. 10.37 Thorns 10, plan

Exterior features

The north elevation (Fig. 10.38) has a straight joint indicating the stable was added at the east end. In recent times it has housed cattle. The long north side was once obscured by the added lofty, nineteenth-century outshut shippon capable of housing fourteen cows. Mid nineteenth-century sawn timber roof trusses supported the roof of flags. The outshut roof has fallen in but the large area in front of the standings suggests a milking parlour with access doors at each end. Between the stable and the added shippon is a former shippon door for the older barn. There is a candle niche in the main shippon wall.

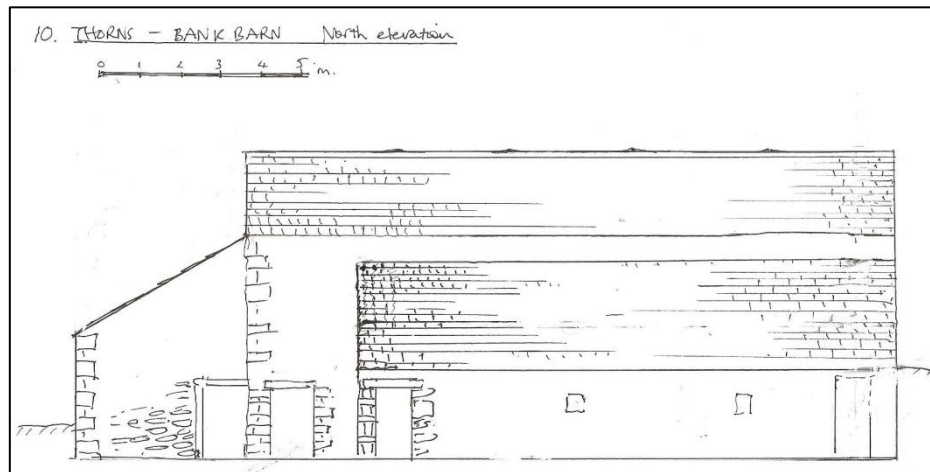


Fig. 10.38 Thorns 10, north elevation as seen in 2004

The west gable elevation includes the double shippon door and a foddergang window. The added outshut shippon is separated by a straight joint from the older bank barn. A small walled structure, probably another stable or a bull house, but more latterly used for two or three stirks or tups, was built into the south-west corner adjoining the bank barn porch. Slates embedded in the wall (Fig. 10.39) indicate it had a mono-pitched roof.

The south elevation was built into the hillside and features the first-floor cart door and its built-up ramp giving level access to the hayloft over the shippon. The porch has been added to the original cart door and it displays three wall niches (lantern holes) which are a common porch feature. The walling is all of limestone rubble blocks, poorly coursed but with a row of through-stones. There is a hay forking hole, 2.2m above the raised ground, for filling the hay mew or hayloft over the shippon. There is a clear straight joint at the east end, where the stable has been added to the bank barn. The stable also has a very large doorway into the fodder loft over the stable. The south wall of the main shippon has three small wall niches.

The east elevation consists mostly of the stable outshut built against the older gable, with a mucking-out hole from before the stable was added on. It has watershot walling typical of the early nineteenth century. The stable for two horses has a typical large window.

Interior features

The older barn once had a shippon with cow standings at the east end. The limed walls, mucking-out window and candle niche by the doorway must have gone out of use when the stable and then the outshut were added and the space became part of the new hay mew for

the outshut. Holes in the gable wall indicate where the end shippon hayloft beams once sat and an owl hole is still visible in the gable.

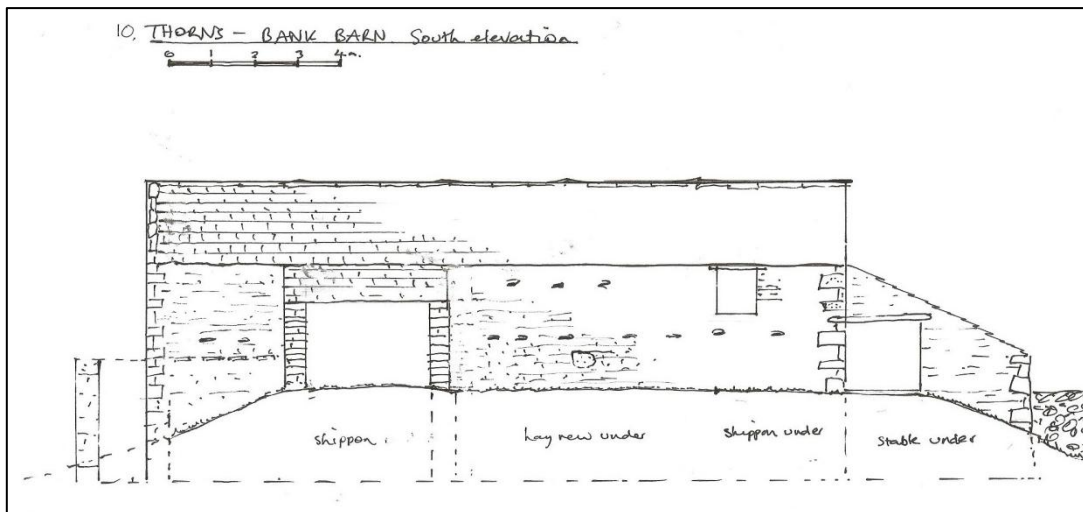


Fig. 10.39 Thorns 10, south elevation

There are four roof trusses in the bank barn. All are suspension-bolted kingposts with a brace from kingpost to principal rafter (Fig. 10.40). The carpenters' assembly marks in Roman numerals include I, II, III and IIII. Most of this timber is sawn and probably imported softwood.

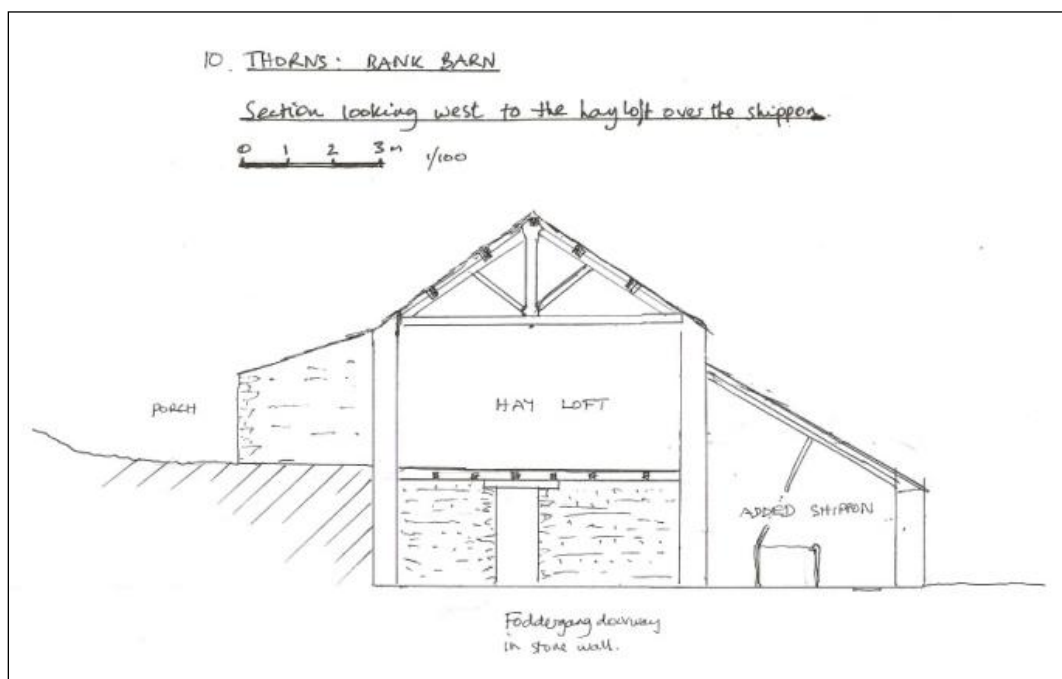


Fig. 10.40 Thorns 10, interior view

The double shippon at the low end is separated from the hay mew by a thin skellbuse wall (400mm thick). The boskins were well made of good timber (imported softwood) with slate panels which support the hayloft above. The inscription 'RH 1837' is painted on one of the

loft beams and dates the making of the shippon and probably the roof trusses too (Fig. 10.41).¹⁹ Similar trusses in upper Wharfedale have dates of c. 1840.



Fig. 10.41 Thorns 10, 'RH 1837' in west shippon (John Asher)

The cart-door access to the first floor hayloft over the shippon was created before its porch was added. This would have restricted the space for turning a cart into the loft or for manoeuvring a horse.

The stable has been added to the former east gable with a monopitch roof leaving space for a hayloft. The entry doorway is tall and there are stalls with ramped sides for two large horses.

The loft above has wide floor boards but no sign of a trap door, although there is a rectangular gap in the floor boards that may have been a trap door. Twice inscribed on the new floor boards of the loft in nineteenth-century flowing cursive letters and in red carpenter's chalk are the words 'The new Stable' (Fig. 10.42). This may have been a destination written on the consignment at the carpenter's yard.



Fig. 10.42 Thorns 10, 'The new Stable' (John Asher)

The long outshut on the north wall retains standings for fourteen cows. Some of the sawn rafters are still seen but much of the structure is covered in rubble and is difficult to view. It would have been lofty and airy, fulfilling nineteenth-century legislation (Fig. 10.43).

¹⁹ Howsons are noted living at Wife Park in 1616 and parish registers record the family name in Upper Ribblesdale over very many generations. Was this a Richard or a Robert Howson?



Fig. 10.43 Thorns 10, north elevation and outshut in 2004 (Frank and Muriel Laver)

Various inscribed (farm workers'?) marks, in a now defunct type of script, are visible on boskin timbers at the east end of the north outshut (Fig. 10.44). 'ML' and 'FL' may well have been inscribed by Francis Lambert for himself and his wife Mercy, who were certainly living here and farming 173 acres (70ha), according to census records for 1851.



Fig. 10.44 Thorns 10, inscribed marks (ML and FL) on boskin timbers (John Asher)

Plan form

This is an example of a bank barn, meaning a barn built on the slope of the hillside, so that the upper floor hayloft can be reached by carts. This was both labour saving and functional.

The ground floor housed the shippons and stables. This is an early nineteenth-century example. There is no physical sign of an earlier barn on the site.²⁰ It is likely that the nineteenth-century owners knew of such barns and had the means to build one.

The bank barn plan is not common in Yorkshire, although at Colt Park across the Ribble there is another barn with cow housing on the ground floor. In Langcliffe village a tall barn has a first floor entry over a shippon. The plan is, however, common in the hills of Cumbria where sometimes there is also a long pent roof over the shippon doorways. In New England and the Alps such a pent roof creates a snow-free area to the doorways.

Interpretation and dating

The barn is of the nineteenth century throughout. The four bolted roof trusses fit the date 1835-37 and several barns have these in Thorns. All walls are thin, at 500-600mm, compared to older walls. On the south side the stonework has the look of an older barn and perhaps materials were re-used. A large building appears nearby on the OS map of 1846-48 where there is now the wash-house and earthwork. When built, the barn housed some twenty cows (fourteen plus six). Each cow would have required about an acre of meadow hay for the winter, thus 20 acres (c. 8ha) of hay meadow. When the outshut was added, and after the east shippon was dismantled, the number of cows housed amounted to twenty-eight so 28 acres (11.3ha) of meadow hay were required. The large hay mew area could at least have been partly filled from the cart door above, but the hay baulks over the shippon must have entailed hard work. The small forking hole at the east end originally served the hayloft over the smaller east shippon.

Why were so many cows kept? With the growing rail network and demand from the towns there was a new nineteenth-century market in fresh dairy produce. The extra width of the added north outshut shippon could have been for a milking parlour. An investment in such a large barn with additions demonstrates a peak in the farming boom of the mid nineteenth century following the late eighteenth-century farming boom prompted by Napoleonic naval blockades. There was extensive liming and fertilising of the meadows. The distant closes with their older field barns or 'field houses' may have been there in the seventeenth century.

There are no date-stones but 'RH 1837' is painted on baulks in the west shippon.

Building name: Wash-house

Survey number: Thorns 11a

HER number: MYD 58525

NGR: SD78201 79413

Recorders: ACA, SH, FL, ML, ST, MWi, MWo, DW

TFB number: HOR45

Record date: 23 June 2016

Report/drawings: A C Armstrong

Setting and orientation

The wash-house is on Trackway no. 6, the walled roadway through Thorns, opposite the farmhouse which it probably served. There is a narrow gateway from the lane to the wash-house which is built on a corner of land with earthworks adjacent that may have been a drying green but in 1847-48, according to the OS map, there was a large linear building on the site covered by the wash-house and earthwork.

²⁰ See Chapter 13.6 for detail on this aspect of the barn.

Building type

Wash-house.

Materials

The stonework is of watershot limestone and sandstone cobbles with use of slates for levelling up wall courses as at Back Hools Barn. Dark-grey roofing slates were used in diminishing courses and the timber is softwood. The rubble walls are of small stones but watershot suggests an early/mid nineteenth-century date but the thin walls at 470mm width suggest a later nineteenth-century date.

Exterior features

The quoins and jambs are very small and the exterior has had a coarse lime render or harl which is mostly falling off, but a characteristic of it is the tendency to weather into bubble-like circular shapes which is seen on other buildings.

The south wall (Fig. 10.45a) has a timber window frame but no glazing remains. Nearby, above the set-pot, is a small upper window to let steam out. There is no chimney flue.

The front (east) wall (Fig. 10.45b) has the doorway with a rough stone lintel and traces of coarse, gritty, lime render.

The north elevation (Fig. 10.45c) has no notable features but the north-east corner is built on a plinth-like limestone corner stone which may be a natural outcrop.

The rear (west) gable wall (Fig. 10.45d) has two wall cracks and iron brackets for holding the slates.

Interior features

The main feature is the set-pot built into the south-west corner of the room. The iron pot or 'copper' is set on a red-brick structure over a fire. The flooring is not exposed but is covered with broken roof slates.

Plan form

A typical small wash-house outbuilding with set-pot or 'copper' built into a corner (Fig. 10.45e). The adjacent land was perhaps a drying green at the edge of the garden or vegetable plot. There is no sign of a chimney stack here and there is only a small window above the set-pot to let steam out.

Interpretation and dating

The wash-house is all of one build of nineteenth-century date. A brick from the set-pot is imprinted 'Barker Ingleton'. Bricks were made from fireclays in the Ingleton coalfield from 1895 to 1905, so this probably dates the set-pot if not the building to that period. However, the dating of the bricks in the set-pot places this after the settlement had been abandoned: perhaps the set-pot was a later addition to a nineteenth-century building. The watershot walling suggests an earlier date of early/mid nineteenth century. The use of slate wall courses is as at Back Hools Barn (probably in the first half of that century).

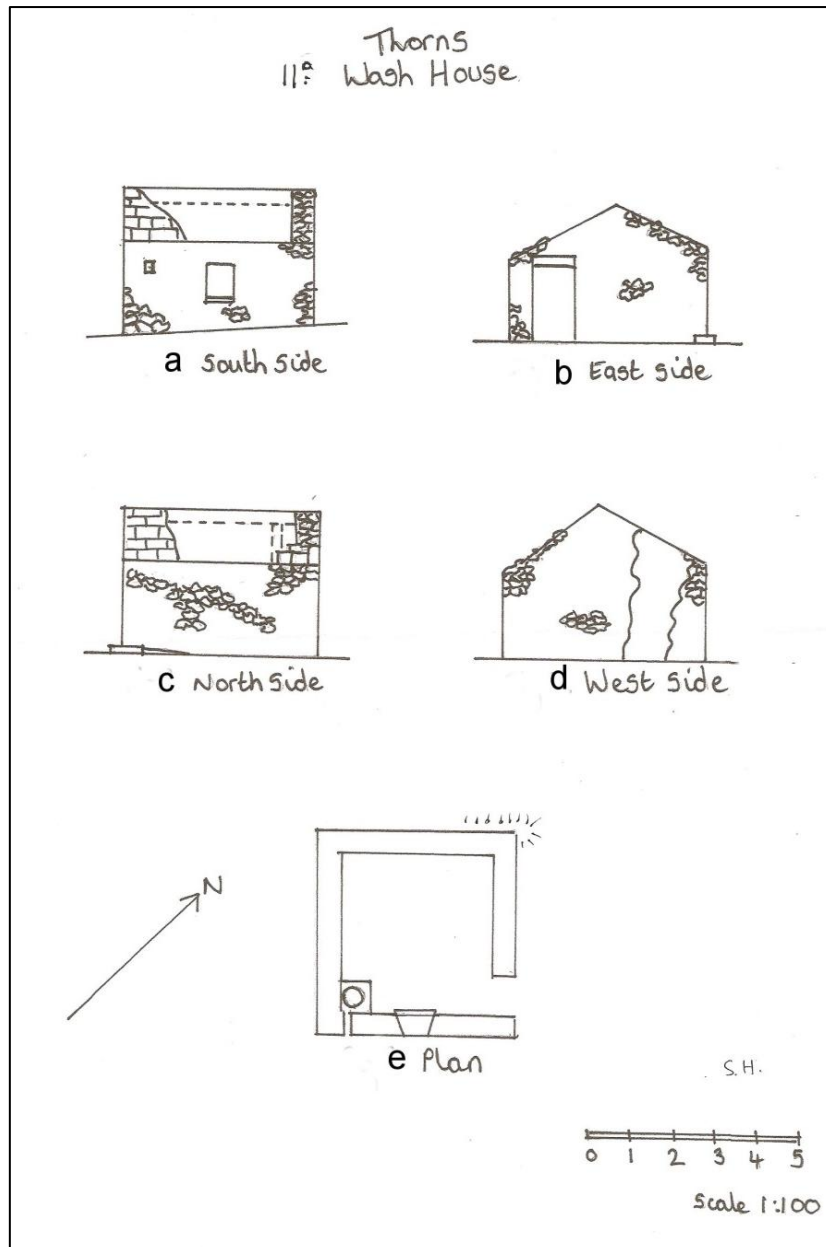


Fig. 10.45 a-e Thorns 11a, plan and elevations

Before the advent of washing machines in the 1950s, but after interior sanitation was introduced, wash-houses remained in use both as public wash-houses (like the later washeteria) and as the backyard wash-house which was very common in yard corners behind terraces of houses. This one may also have housed a standing wringer and, if there was drainage, perhaps a sink. It was important to boil whites and sheets whereas coloured items were soaked at a lower temperature. Items were left to dry outdoors. It is unclear if this was a communal and shared wash-house or built for the last surviving house which was nearby across the lane.

Within the living memory of the present farmers, the building and its set-pot served a very different purpose, namely for melting the salve for treating sheep.

There is no date-stone.

Building Name: Earth-closet toilet or Privy

Survey number: Thorns 11b

HER number: nil prior to this project

TFB number: nil

NGR: SD78193 79431

Record date: 23 August 2016

Recorders: ACA, DJ

Report and drawings: Alison C Armstrong

Setting and orientation

The privy is in an open area, a short distance behind the old farmhouse (Thorns 1) and possibly in a former yard or garden. The building is not shown on 1907 OS mapping (by which time the settlement was no longer inhabited) or on the 1846-48 edition (the privy post dates that date) but it is shown on the 1890s map.

Building type

Toilet (long-drop type).

Materials

Sandstone and limestone were used. Blocks of stone for lintels and quoins are rather large and roughly squared. The walling stone is roughly-coursed rubble with fillings in the centre.

Exterior features

The entry door is in the highest area of standing walling (Fig. 10.46 a-c). The structure had a monopitch grey-slate roof with individual slates 15 inches (375mm) long. The drop is infilled with debris from some of the remaining rear and side walling. The quoins and lintel are rather large and roughly squared.

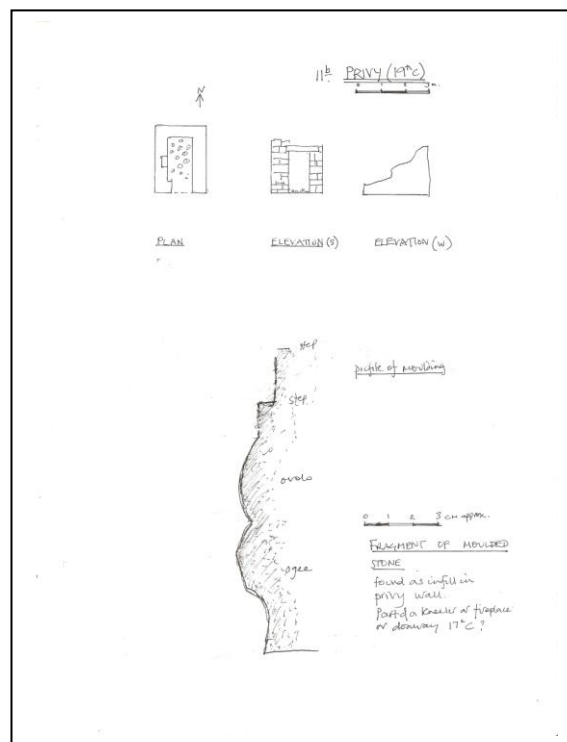


Fig. 10.46 Thorns 11b, plan, elevation and moulding

Interior features

A wall niche, similar to those beside barn doorways, was for a lantern or candle.

Embedded in the rubble interior of the east wall is a sandstone fragment of what appears to be a worked stone (Figs. 10.46d and 10.47).²¹ It has a moulding c. 230mm deep on a curved face. It is possible the mouldings are on two faces such as might occur on a fireplace lintel. The ogee is probably the top of the moulding. First there is a flat moulding 60mm deep. Below is an ovolo moulding 30mm deep with grooves forming the edges. Below that is what appears to be an ogee moulding or possibly a step with flat mouldings. This may be a fragment of a seventeenth-century roof kneeler or parlour fireplace but it appears to be the only cut stone on the site; however, it suggests that some stonework at Thorns was more ornate.

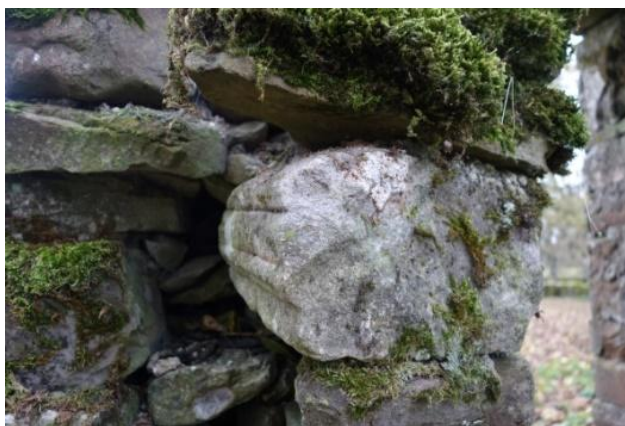


Fig. 10.47 Thorns 11b, moulding (John Asher)

Interpretation and dating

The walls are narrow, at 480mm, and like its other features are typical of late nineteenth-century work. It only appears on the OS map of c. 1890.

Building name: Hipping House/Wife Park

Survey number: Thorns 12

HER number: nil

TFB number: nil

NGR: SD78211 78865

Record date: 29 November 2016

Recorders: ACA, DJ

Report: David Johnson

Little remains on the ground to show this tenement ever existed other than a vague earthwork though its original L-shaped plan, shown on OS mapping of 1846-48, does not show in the earthwork. The basal courses of the building's north and east walls have survived in the current field wall, and a partial straight joint and large sandstone base slabs in the north-west and north-east corners mark the putative west end of the building (Figs. 10.48 and 10.49). Walling stone is dominantly sandstone with many of the stones being squared rather than rounded. One large block (630mm long), beyond doubt still *in situ*, lies on the south side of the boundary wall marking the line of the south wall and making the building 4.5m wide internally

²¹ During consolidation work to the privy (see Chapter 16.4) this stone was relocated on the exterior of the north-east corner of the wall where it is fully visible.



Fig. 10.48 Thorns 12, north-east corner (David Johnson)

The house formerly sat on the northern edge of a small enclosure, or garth, bounded by dry-stone walls which have survived on the east and south sides as derelict wall lines. At the point where Trackway no. 3 entered this enclosure the former gap has been infilled with a dry-stone wall with its position marked by a wallhead straight joint.



Fig. 10.49 Thorns 12, north-west corner with foundation slab or padstone (David Johnson)

4. Building Materials

Stone, lime mortar, timber and clay items were required for most buildings in the past.

Stone materials were sourced locally from the shallow scars of Lower Carboniferous limestone that still outcrops in the turf and stone collected was hammer dressed for various grades of rubble walling stone as well as for rough lintels and quoins. Limestone also occurs as rounded cobbles and larger boulders in glacial till and was gathered up to be used in walling of all kinds from houses to field walls.

Sandstone flags for roofing came from Lower Carboniferous Yoredale Group rocks not far away. Blocks of fissile sandstone, perhaps Yoredale strata, were used for lintels and sandstone quoins. Brown sandstone cobbles, boulders and large blocks were sourced from glacial till and some of the larger stones were dressed for lintels and quoins and perhaps c. 1700 for mullioned windows. These seventeenth-century window surrounds are well made and reflect those seen in other farmhouses in the area, such as sandstone window surrounds at Newhouses. Ribblehead House, north of Thorns, was long since demolished but the barn that was rebuilt from it has parts of reused two-light mullions and also larger mullioned windows.

Ganister-like grey sandstone boulders have signs of hammer shaping for walling. Grey gritstone was quarried in the nineteenth century for dressed stonework, for example in Back Hools Barn. Floor materials are not greatly exposed but there are glimpses in the cart-arch barn of Horton Flag used for the foddergang floor and for boskin panels and for a small paved area in the cart shed. Cobbled floors are seen in the bank barn. Two water troughs are of Horton Flag slabs bolted together.

Lime render seen on the external walls of the wash-house, the bank barn and Low Flat Barn came from local lime kilns and the lime has weathered into distinctive concentric shapes.

Clay drain pipes form the ventilator holes in the hay baulks and mew in Back Hools Barn and, although it is the only example in Thorns, they are not unusual in nineteenth-century barns in the area.

Timber for roof trusses and boskins is mostly of imported softwood. Traces of Cyrillic script markings on the timber were seen in the cart-arch barn and Back Hools Barn indicating Baltic origins. Some reused dark timber in Low Flat Barn, the cart-arch barn and Bank Hools Barn is very rotten and may be oak. Reused cruck timber (also possibly oak) is strangely absent in Thorns but is seen in other hamlets (see Appendix 10.2 for examples). Some such timber elsewhere has been dendro-dated to around 1500 (Appendix 10.3).

5. Dating the Built Structures

Structures can tell us something about the dates of building and provide chronologies using data about wall thicknesses, walling materials, styles of walling, walling features, timber materials, and roof truss style (Appendices 10.4 and 10.5). Plan types provide evidence of the use of spaces, farming, domestic life and aspirations, whether in houses or barns. All the buildings in Thorns are rectangular and linear, or began as such. Apart from the wide nineteenth-century Back Hools Barn and the six-bay bank barn, the houses and barns are all around 6m (19 feet 6 inches) wide, including wall thicknesses. Re-roofing in the nineteenth century with bolted kingposts may have reduced the number of original trusses.

Wall thickness

Older walls tend to be thicker and this can be seen in Thorns (Appendix 10.5). The mid nineteenth-century wash-house (Thorns 11a) has walls only 470mm thick. The bank barn dated 1835-37 (Thorns 10) has 550mm-thick walling, whilst older walls of 700mm or more are seen in Holme Barn (Thorns 4), High Flat Barn (Thorns 7), the house under the sycamores (Thorns 3) and the remains of Hipping House/Wife Park (Thorns 12).

Plinths and padstones

Buildings need a level base for constructing a solid stone-built wall or for a low wall or plinth to support a timber structure, such as a cruck timber frame, and to keep the timber above damp ground. At Thorns there are boulder plinths and coursed plinths associated with well-coursed limestone walling which is pre 1650 and possibly medieval. A documentary reference includes how in 1454 the vicar of Kirkby Malham provided drink for carpenters 'for laying great stones under the foot of the crokk', a process here called 'basyng', that is, setting out padstones for crucks (Harrison & Hutton 1984, 42).

Holme Barn (Thorns 4) is built almost entirely of limestone rubble, including quoins and doorheads, but the foundation plinth has some flat-topped sandstone boulders at one corner (Fig. 10.50). The ruin of the house by the trackway (Thorns 2) also has a red sandstone boulder at step-plinth level (see Figure 10.10). Possibly these are corner padstones or plinths for cruck blades. The farmhouse (Thorns 1) has a straight joint on the frontage (see Figure 10.4) besides a tall boulder embedded in the plinth wall, which might be a padstone for a cruck blade now removed. The truss has been replaced by a stone cross-wall here. Low Flat Barn has a rough plinth (see Figure 10.18) which is particularly prominent at the north end with sandstone boulders and limestone blocks projecting from the wall, and possibly late cruck padstones.



Fig. 10.50 Thorns 4, corner block (David Johnson)

High Flat Barn (Thorns 7) and the house by Trackway no. 1 (Thorns 2) are both of limestone walling with minimal sandstone, as at Holme Barn, but both are of very well-coursed rubble blocks and two unusual step plinths that change from a lower level in the wall to a higher level. Both have a large sandstone dressed slab vertically embedded in the wall where the plinth changes level (Fig. 10.51). The reason for the sandstone slab is unknown, but possibly where a cruck was removed. It is perhaps no coincidence that a barn at Low Birkwith also has a high, two-step plinth and good coursing which might be pre 1600 or even medieval (Barn C, Low Birkwith, YVBSG 1996, 9). At Thorns, the four buildings with walls only of limestone also have 700-800mm wall thicknesses and are perhaps the oldest building remains (Appendix 10.5).



Fig. 10.51 Thorns 2, sandstone slab (Lynda Hutchins)

The cart-arch barn (eighteenth century) also has a shallow low plinth, but walls of only 650mm and it perhaps continues the tradition of good foundations on sloping ground. The added bay (possibly of c. 1800) to the barn has no plinth, but has nineteenth-century watershot masonry and a ragged joint where old quoins were pulled out and reused in the new extension.

Wall materials

Analysis of building materials (Appendix 10.5) highlights a surprising and strong distinction between, firstly, those structures built entirely of limestone, with thick walls and a plinth and, secondly, those of mixed limestone and sandstone walling, with sandstone dressings (like quoins and lintels), sandstone flag roofing, thinner walls (about 650mm and mostly laid watershot) and through-stones. Slate courses, rather than through-stone courses, were used in the later nineteenth-century Back Hools Barn and wash-house. This appears to give a chronology.

Architectural detail

There is minimal architecture at Thorns thereby suggesting they were impoverished farmers or that good stone was subsequently removed. All that has been found are the lintels and sills of three two-light mullioned windows and a fragment of a stone frieze, with ogee and ovolo moulding, buried in the privy wall. This may be from a seventeenth-century door lintel or fireplace sill. At Back Hools Barn the nineteenth-century rock-faced ashlar with chisel-drafted corners is a gentry building style, perhaps here by new owners. There are also ornate ridge and coping stones of sandstone with a Burlington slate roof. Its forking hole surrounds have a hint of the Classical in the impost blocks.

By comparison, the farmhouse at Far Gearstones, north of Thorns, appears full of features. Like Thorns, this house is linear and of several, perhaps four, bays or more long. Yet it has thick, battered, whitewashed walls, a dovecote in the gable (a gentry or manorial symbol), and a massive chimney stack in the centre of the roof, but all windows are nineteenth century so perhaps replaced mullions or timber windows. One entry door appears to have a

curved timber lintel. The roof is not very high perhaps indicating that it also is an old cruck building rebuilt to squeeze in an upper floor.

Roofing materials

Five buildings have evidence of traditional sandstone flag roofing but the wash-house and Back Hools Barn have Burlington-type grey-green slate of later date.

Roof trusses

Four buildings had similar roof trusses of early nineteenth-century date and all are bolted kingpost roof trusses: see the drawings for Gillheads Barn (Thorns 5), Low Flat Barn (Thorns 6), Back Hools Barn (Thorns 8), and the bank barn (Thorns 10). The cart-arch barn (Thorns 9) has the only trusses which are not kingposts but eighteenth-century plain morticed apex forms. The tie beams are re-used timbers (see Figure 10.36). All are softwood timber with minimal carpenters' assembly marks, mostly 'I' or 'II'. Considering the amount of older walling, there seems to be a lack of any roof trusses dating from before c. 1840, which suggests a sudden replacement or repair and upgrading of farm buildings. Between 1847 and 1905 Holme Barn, High Flat Barn, the three-cell house and Hipping House/Wife Park all disappeared from OS mapping. The small wash-house of the mid/late nineteenth century had only rafters on a ridge piece.

Heightened rooflines

The steep rooflines of former thatched cruck buildings, heightened in the seventeenth or eighteenth century, are still seen in the Ingleborough area, for example in Newby Cote barn and Low Birkwith Barn C. At Thorns, only the walls of the last farmhouse still stand to anything like two storeys but a subtle change in the walling indicates that it, too, once had lower eaves and a single-storey roofline and was heightened to two full storeys by the eighteenth or perhaps the early nineteenth century (see Figure 10.4). Lintels and sills of small two-light mullioned windows (seventeenth or early eighteenth century) were re-used with enlarged openings for nineteenth-century sash windows. The left gable has fallen outwards but retains the two sides to almost full height. This gable has well-coursed walling with slim limestone quoins not thicker than the walling courses. This is usually seen in buildings of sixteenth-century date. Heightening of the low eaves level and removal of cruck trusses may have caused the wall centre to fall (anecdotal evidence suggests there was a large fireplace here which may have heated the parlour). Returning to the frontage (see Figure 10.4), the plinth meets a possible padstone and a low straight joint by the cross wall. At first floor level there is a change in the coursed limestone-block walling marking a heightening. In the Dales, including Ribblesdale, evidence of low roof lines, large plinths, sandstone padstones, well-coursed stone, and often re-used cruck fragments, is recognised as indicative of former cruck-constructed buildings. The walling here may have been heightened after the crucks were removed. Alternatively they may have survived *in situ* until the nineteenth century.

Building plan types

Linear plans predominate in Ribblesdale and are seen in Thorns where most buildings are about 6m across and several cells long. The three linear houses have conspicuously uneven cells perhaps reflecting a tradition of raising curved cruck trusses in pairs set on padstones.

Exceptions to the traditional linear plan are the two, very wide, gable-entry barns of the bank barn (five bays and 7m wide) and Back Hools Barn (three bays and 9m wide) which are both nineteenth century.

Where nineteenth-century Baltic timber roof trusses survive, barns and houses are mostly of two or three bays with each truss bay about 3m wide. The three-bay field barn in Holme was L-shaped with a wider shippon, but this seems to have been a later alteration with thinner walls. L-shaped field barns are common in Ribblesdale. Low Flat is the smallest field barn with two bays, each bay of 3m, housing four cows. Holme Barn is a little bigger and has an enlarged shippon to house five or six cows.

Barry Harrison (Harrison and Hutton 1984, 42) argued that the longhouse, with one entry for both humans and livestock, may have been the main plan until the 'great rebuilding'. There are, however, no complete cruck buildings surviving for comparison and there had been no archaeological excavations of buildings to bridge the gap in knowledge from medieval structures to those of the seventeenth century. What was there before the 'great rebuilding' is still unclear. For West Yorkshire, Colum Giles (1986, 42) thought the continuing use of crucks in parts of that county in post-monastic times was due to low-status building amongst the poorer farmers where the small, low, linear, single-storey cruck house of two or three rooms sufficed and endured.

The form of Craven crucks is, however, known from reused examples (Armstrong and Pacey 2000, 28) and they are different from North York Moors or Vale of York cruck trusses.

The lack of reused timber

Whilst linear plans and structural details indicate that cruck buildings are likely to have been rebuilt over the centuries, there is a lack of reused cruck timber (Appendix 10.2) or any other timber at Thorns. It seems as if it has been cleared out. In the local area, dendrochronology on Ribblesdale oak cruck timber (Appendix 10.3) is now producing late fifteenth- and early sixteenth-century felling dates. Sources of 'large' timber for use on monastic estates were usually provided by the abbey, such as by Fountains Abbey in Kilnsey and Bolton Priory in Long Preston, so perhaps Furness Abbey provided timber for Ribblesdale.

6. Conclusions: the Houses

The only standing house is the farmhouse (Thorns 1). To the north of it are the earthworks of another house (Thorns 3) with three cells and, unusually, a lot of sandstone. To the west, beside Trackway no. 1, are remains of another possible house (Thorns 2) with a short length of wall still standing. Hipping House/Wife Park was visited but not enough remains to record its dimensions, and its field setting might superficially suggest a barn.

Houses and their plan types

Horton in Ribblesdale parish has plenty of evidence of the 'great rebuilding' in the seventeenth century with a number of date-stones (Appendix 10.1) on both good stone houses, such as Lodge Hall, and smaller yeoman houses. A diversity of house plan types has been recorded in Horton: central lobby entry, end lobby entry, central chimney and end entry, end stack and direct entry. Most houses, however, are linear and only one cell deep and this is reflected at Thorns. Because of the ruinous state of the three houses

investigated, plan types are difficult to assess. Excavation is required to locate the chimney and front door and so name the plan type. The linear plan of uneven cells, however, is significant and likely to come from sixteenth or early seventeenth century cruck-built structures whose remains are not uncommon in the area in spite of rebuilding phases. Along with the rebuilding of houses by the new yeoman farmers were farm buildings such as meadow field barns, many already built by 1600 as cruck structures. Tree-ring dating from local oak crucks has, so far, come out as pre Dissolution and early sixteenth century in date.

Useful comparison comes from sixteenth-century documentary records of cruck buildings erected by the Cliffords of Skipton Castle, such as those in 1559 'newly builded' on Silsden Moor where cruck timbers and steep rooflines are still seen in houses rebuilt around 1700. In Cracoe in 1586 there was recorded a

firehouse of four payre of crucks of ashe timber, one barn of 5 payre of crucks of oake timber lately builded, one other house for hay of three payre of crucks lately builded of oake timber, two other houses the one whereof is of three paire of crucks and the other of two pair of ashe timber (YAS/DD 121/31).

A lease of 1572 for Kilnsey records building a 'house' (probably a field barn) of '3 pairs of crucks' of white wood (YAS/MD 247).

A look around Horton in Ribblesdale parish reveals houses rebuilt in the eighteenth century with increasing symmetry and double pile rather than asymmetrical linear houses. Early eighteenth-century inventories for Thorns (unpublished) suggest some houses were still single-storeyed or with 'lofts', probably retaining their cruck form. Signs of cruck buildings picked up in the survey include a large plinth, padstones built into the walling, patched walling where crucks have been removed, former low eaves with steep roofs, and heightened roof lines. What is missing at Thorns, but not in the area, is evidence of reused cruck timbers identified by their half-lap joinery.

A field-meeting conference of the YVBSG in 1995 was based in Horton and recorded a number of reused cruck timbers where none had been recorded before, and this filled a geographical gap in the national cruck register (Alcock 1973). The association of medieval monastic land in Craven with cruck buildings has become increasingly clear and is supported by dendrochronology results.

The three houses at Thorns²²

The house (Thorns 3) is of three linear bays (see Figure 10.12) and the earthwork measures 6 x 15m. It lies to the north of the only standing dwelling (Thorns 1). The bays are of different widths and uneven and could be attributed to cruck building. There seems to have been a rear extension, probably a dairy or sub-cellar. The house had disappeared from OS maps by 1907 leaving only two farmhouses, which are of similar dimensions. House 3 has much fallen stonework and an unusual amount of sandstone cobbles, possibly disturbed from the foundations, and rounded wall corners as if robbed of all quoin stones. Perhaps it was less well built but on the OS map of 1846-48 the house is shown as linear but with a

²² The comments in this section were written prior to the excavation phase.

rear extension, perhaps a dairy, and a front extension, possibly a porch, altogether much like House 1 and House 2.

The front entry may have been moved into the left bay where there is a ground dip and a mapped extension, perhaps a porch. There is a possible internal doorway connecting with the next bay. The third bay, on the right, is the biggest cell and has two sites where stones may mark doorways. Whether this was an agricultural end is uncertain. Without an excavation to find the housebody fireplace and its relationship with the entry, the plan type cannot be discerned. Uneven bays are very characteristic of cruck buildings which may indicate a three-bay cruck house here until the 1880s.

All that remains now of this house are rubble-covered foundations (Fig. 10.52).



Fig. 10.52 Thorns 3, surviving remains, prior to excavation (David Johnson)

The farmhouse (Thorns 1) (Fig. 10.53) is the only house with any walls standing to two storeys. It is of two cells but is now ruinous, and was abandoned before 1891. The entry doorway has a large lintel with rounded upper corners (often sixteenth century) and probably forms a lobby into the two-bay bodystead room, beside a gable firehood, which might remain under the rubble to the east of the entry door on the south side of the building. To the west was a parlour and probably the site of the first dairy behind it. This has sixteenth-century-style walling with low eaves which suggest a cruck building. A larger rear dairy outshut and sub-cellar were added in watershot stonework about 1820. Beyond the eastern end of the house are the stony foundations of two single bays. These may be an added kitchen/service room or farm buildings but their thick walls suggest they might be older than the present house and the remains of a once larger house. Arnold Pacey gave the name 'shadow houses' to Ribblesdale dwellings where an earlier house and adjoining barn had become detached during rebuilding and where the house reused components of the older dwelling

such as mullions (Pacey 1995). Examples in the area include at Newhouses. House 1, however, does not seem to have been a shadow house.



Fig. 10.53 Thorns 1 in January 2017 (David Johnson)

House 1 measures 6 x 12m (or 19m including the possible two cells of agricultural additions). The elevation drawings (see Figures 10.4-10.7) show evidence of a substantial pre-1600 plinth to a linear building, a possible padstone built into the plinth at the position of the cross wall (now of stone), a small joint in the stonework where a cruck blade has been removed, evidence of a lower roofline, and heightening to two storeys, supported over the parlour by close-set floor joists at former eaves level. The upper part of the two-storey house may only have covered the parlour chamber with its large nineteenth-century front window (or possibly a taking-in door). The bodystead retained, until recently, a chamber window over it but much lower in the wall than the parlour chamber window so it perhaps remained a loft. What is missing at Thorns is any reused cruck timber. A large beam which appears to be oak was buried in grass outside the house and might help interpret the house. The remains of two-light mullioned windows were reused for the large nineteenth-century windows but could have been part of the low-eaved house into the seventeenth century. Excavation may help understand the plan.

Thorns 2, another ruin (Fig. 10.54), lies to the west beside Trackway no. 1, separated from House 1 by a stone-walled garth or yard.



Fig. 10.54 Thorns 2, ruin by Trackway no. 1 (Mark Woronowski)

Just part of a front wall survives to about 2m high (see Figure 10.11) and this has a low plinth and then a straight joint with a higher plinth and, unusually, a large squared and dressed sandstone slab inserted vertically into the wall. The double-step plinth which changes in height beside a large dressed sandstone is also seen in the remains of High Flat Barn. The double-step plinth is seen in Low Birkwith, too, around a former cruck building. It is possible that the sandstone is filling a gap in the wall caused by removing the cruck foot. The plan (see Figure 11.10) is again of three cells of uneven width and of similar size to House 3. Stone structures on the rear wall suggest a rear dairy like that at House 1. The 1846-48 OS map shows no porch at the front as the house is on the trackway but two outshuts are shown at the rear, perhaps a dairy and a porch. The field wall opposite the house front has been moved outward to widen the road past the house. An attached low end may have been an agricultural building or cart shed. Measurements of the rubble spread that mark the building are 6m in width x 16m in length (or 20m including the attached east cell.)

The wash-house and privy (Thorns 11) are part of nineteenth-century domestic improvements (Figs. 10.55 and 10.56). The well near the garth north wall would also have been an essential resource (see Chapter 12, Test pit 5).



Fig. 10.55 Thorns 11a, wash-house, in 2016 (Mark Woronowski)



Fig. 10.56 Thorns 11b, privy, in 2016 (Dianne Wall)

Hipping House/Wife Park (Thorns 12) is a remote rectangular ruin near the stepping stones and a former routeway across the Ribble. It measures 6m across on a surviving gable end and 8.4m long on a side wall. Although it was L-shaped on the 1846-48 OS map, there is no sign now of that extension. One gable and one side wall remain as foundations in the field wall. In dimensions, this building matches Low Flat Barn's 6 x 8m, Gillheads Barn's 6 x 8.5m, and Holme Barn's 6 x 9.5m and, like them, it has a thick wall 700mm wide which is battered. It would therefore superficially appear to be a 'field house' or barn rather than a dwelling house. The building had gone by the later nineteenth century (perhaps replaced by the big Back Hools Barn) but the OS editions of 1893 and 1907 show its site was amongst fields depicted as meadows by the OS and named 'Wife Park' and 'Thorns'.

In conclusion, all three houses are linear, of three cells and similar size, about 6m wide by 12m (extending to 19m including the agricultural end), 16m (extending to 20m) and 15m respectively in overall length. The 1846-48 OS map shows extensions to 'House' 3 (probably a dairy) and an extra rear extension, perhaps a porch to avoid the road. Most houses in

Horton township are one room deep and this applies to the three dwellings at Thorns. The built evidence suggests that all originated as cruck-built houses and that House 1 became two storeys in the nineteenth century, at least over the parlour end. The two-light mullioned window sills and lintels and fragment of stone frieze (see Figure 10.46d and 10.47) from a fireplace or doorhead, found in the privy wall, are all that remain of any decorative seventeenth-century work. Only excavation can answer questions about room plans and phases of alteration. Inventories (see Appendix 10.6) suggest the likely single-storey nature of houses in Thorns.

7. Conclusions: the Barns

Seven barns were recorded in Thorns of which five were traditional field-barns or 'field-houses' which stood in walled meadow closes, away from the farm houses. Hipping House (or Wife Park) may have become another field barn based on its size and meadow site, but documentary evidence places a dwelling there in 1582. Field barns were being built before 1600 by the new yeoman or husbandman classes and for some four centuries were part of a specialised farming cycle of hay production and keeping of dairy cows that replaced monastic sheep farming. Surveys for Kettlewell in 1605 and Grassington c. 1603 show that many 'field-houses' were already built with some situated in former open arable fields. Field-houses were also built at Thorns. Multipurpose barns with other functions, such as a threshing floor, tended to be near the farmhouse, like the large farmyard barns at Low Birkwith. Many field barns, like houses, often exhibit alterations that seem to indicate a 'great rebuilding' of barns as well as of houses. Old cruck-built structures were rebuilt with higher eaves, raised stone walls and a stone flag roof. They retain older foundations with thick walls as seen in Thorns. The vernacular buildings specialist should be able to spot such clues and offer explanation.

From the later sixteenth century a few cows would have been overwintered in stalls in the shippon with their meadow hay fodder filling the hay mew and loft and the manure retained in the midden until spring when it could be spread on the meadows. Cows were longhorn breeds and were tethered in the 'booses' to the 'rudstake' or 'rudster', to prevent damage from their curving horns. Cows lie down by lowering their heads first so the chain slid easily on the rudstake. Inventories for Thorns (Appendix 10.6) show butter and cheese were made. The rear 'dairy' or 'milkhouse' is seen in houses at Thorns. In contrast, Back Hools Barn (Thorns 8) and the bank barn (Thorns 10) are two very large nineteenth-century barns reflecting intensification of farming that lasted almost until the end of that century.

The five field barns – Holme Barn, Gillheads Barn, Low Flat Barn, High Flat Barn, and the field barn with added cart shed – have similar plans with a shippon and hayloft over a large floor-to-ceiling hay mew. The variation in barn size is due to the ratio of the number of cows in the booses and the amount of hay storage required as feed over winter. More cows need more hay and larger field barns reflect boom times with increasing manure and lime nutrients and higher yields of grass. Only Low Flat Barn, the smallest field barn, is still roofed. All are linear except the L-shaped Holme Barn which has a widened shippon of thinner walling added to an older barn.

Cruck timber is widespread in barns and houses in Ribblesdale (Appendix 10.2) although none was recorded in Horton parish until the 1995 YVBSG conference.

Dendrochronology of cruck timbers in monastic farmyard barns in Ribblesdale has produced felling dates of 1525 and c. 1500 (Appendix 11.3). Cruck-constructed field barns are likely to be post monastic but pre 1650 but have never been sampled, though, at the time of writing (December 2016), one cruck field barn in Kilnsey was due to be dendro-dated.

Five field barns

Low Flat Barn (Thorns 6)

This is a typical rectangular, two-door plan, Dales field barn and the only field barn in Thorns which is still roofed (Fig. 10.57).



Fig. 10.57 Thorns 6, Low Flat Barn, in 2016 (Lynda Hutchins)

At two bays and 6 x 8m, it is the smallest barn and the shippon retains standings for only four or perhaps five cows. From the two forking holes, meadow hay could easily have been loaded from the higher ground on the west into the mew and baulks over the shippon. Sleds may have been used since the ground is rough and steep for a wheeled cart or wagon. The roof truss is a bolted early nineteenth-century kingpost, one of four such roofs surviving in Thorns but this seems a replacement of an older building with a slightly heightened roof. A plinth of some large boulders and limestone blocks on the gable and a small plinth along the front suggest perhaps an eighteenth-century date, as do the rows of through-stones. The walling, however, has been much repaired or rebuilt so that the quoins of the middle part of the wall with a boulder base could be older. There is also a possible gable padstone and wall disturbance. Of interest inside are the railway sleepers, used as boskin posts, which retain the shadow of the iron railway blocks for holding the rails. It is suggested that in the 1870s the temporary tramways for the completed Ribblesdale railway work were sold off.

Gillheads Barn (Thorns 5)

This barn, demolished in 2003, was a rectangular barn of similar size (6.5 x 8.5m) to Low Flat (6 x 8m) and probably another two-door plan with standings for five cows. It was later enlarged by adding a long outshut shippon to the side wall (as at the bank barn) for overwintering eight or nine cows, whilst the older barn became the new hay mew with hay stored in the old barn. This barn was probably heightened and given a nineteenth-century bolted kingpost truss which remains in the grass on the site. The barn may have been eighteenth century or built on an old foundation in the meadow.

Holme Barn (Thorns 4)

This has an L-shape and a plan type common in the Dales (Fig. 10.58). It may have begun as 6 x 9.5m but the low end shippon was widened from 6 to 8m. It was demolished before 1907 but probably retained the two-door field barn plan but with a wider shippon for seven cows across, rather than just five. An excavation would confirm the plan and if it was originally cruck built at 6 x 9.5m.



Fig. 10.58 Thorns 4, Holme Barn remains in 2016 (Carol Ogden)

The field barn with added cart bay (Thorns 9)

This barn (Fig. 10.59) lies just north of the hamlet. This is another two-door field barn like Low Flat Barn, but longer, at 6 x 10m, and is three bays long with two pegged roof trusses. These are the oldest trusses surviving at Thorns (possibly late eighteenth century) and the tie beams are of re-used oak with Baltic timber principal rafters. Some Baltic shipping marks, in Cyrillic script, like those in Back Hools Barn, are seen on a rafter. In size this barn matches High Flat Barn. There is a low plinth which is seen inside the added 4m-long cart shed. The barn walls are 650mm thick. There are standings for six cows so the barn is longer than Low Flat Barn to accommodate the extra hay required. Horton Flag slabs pave the foddergang and infill the boskin panels in local style. Brown sandstone boulders, as well as limestone blocks, are increasingly evident for dressed walling stone and lintels, rather than just in the foundation plinth. The cart house was added in watershot masonry of mixed stone types c. 1820. Like Low Flat Barn, the hay forking hole is placed on the uphill ground allowing a sled or cartload of hay to have easy access for filling the mew. The cart house was partly floored with cobbles perhaps for a stable. Floor joist holes gave an attic space for equipment or perhaps pony fodder.



Fig. 10.59 Thorns 9 in 2016 (Mark Woronowski)

High Flat Barn (Thorns 7)

This is another rectangular plan barn and at 6 x 11m similar to the cart barn. It has an eighteenth-century field wall linked to it but an older bank and ditch (probably a medieval boundary bank) is just a few metres away. The barn plan is unclear but the mound of stone on the south corner may indicate a cruck padstone site. Notable is the very well built wall of coursed limestone rubble blocks which includes an unusual stepped double plinth around the two remaining sections of thick walling 750mm and 850mm thick (Fig. 10.60). A field barn in Low Birkwith, another Furness Abbey site, has the same building dimensions and more importantly a similar unusual double-stepped plinth nearly a metre high around the base of the building, as well as a low eaves line and a heightened roof preserving curving cruck blade sites. This is likely to be pre 1600 and possibly medieval.



Fig. 10.60 Thorns 7, High Flat Barn, in 2016 (Lynda Hutchins)

Two large nineteenth-century barns

The bank barn (Thorns 10)

With six bays and at first measuring 7m wide x 16m long, this was the largest barn in Thorns and is early nineteenth-century in date (Fig. 10.61). It has five kingpost roof trusses that look like Baltic softwood timber and are suspension bolted. The shippon is dated 'RH 1837' in

paint on ceiling timbers and represents the start of a boom time in farming which continued from the intensification of the Napoleonic blockades of the late eighteenth/early nineteenth-century. The barn housed twenty cows at first with fourteen cows in the double shippon and an east-end shippon (now dismantled) for another six cows. In plan it was a Cumbrian-style bank barn with a cart door on the first floor giving entry to the hay baulks with the shippon beneath. A similar barn lies at Colt Park, across the Ribble, where cows were housed underneath a first-floor hayloft. Such a plan made the filling of the hayloft and hay mews much easier and made use of sloping land. The original hayloft over the east shippon, however, was filled in the usual way from a wall forking hole. Later on (probably mid nineteenth century) this east shippon was removed and used for more hay storage. It was replaced by the addition of the long outshut shippon, housing another fourteen cows in an airy shed. The barn then housed fourteen + fourteen = twenty-eight cows with an estimated 386m³ of hay storage.

A stable for two horses was added to the east gable of the barn, in later times to be used for housing two cows. Joiners' red-chalk writing on the sawn ceiling floor boards records 'The new Stable' and perhaps indicates a destination from the carpenters' workshops.

The hay storage capacity in the bank barn of 386m³ translates into 13.8m³ required per cow over winter. Back Hools Barn by comparison has 168m³ of hay storage for twelve cows = 14m³ per cow, so a very similar amount. Some Dales farmers reckon that one cow required hay from about one acre of meadow so possibly 28 acres of meadow hay would have filled the bank barn. As grassland was increasingly improved from the seventeenth century, by liming and manuring, more hay was produced and more cows could be over-wintered.



Fig. 10.61 Thorns 10, bank barn, in 2016 (Dianne Wall)

There was a limit to how much fresh milk could be used in the nineteenth century before the coming of the railway in the 1870s. With the slump in farming in the later nineteenth century, sheep became more profitable and the investment made in such a large barn would have failed.

Back Hools Barn (Thorns 8)

This is the second largest barn at Thorns, with similarities to the bank barn, built at a time of farming prosperity around the mid nineteenth century.²³ Its function resembles a traditional field barn with a hay mew and baulks which were filled from forking holes on the north, uphill side. It is only three bays long but is very wide at 8.5m and of later date than the bank barn.²⁴ Its double-shippon arrangement with central foddergang, gable shippon doors and standings for fourteen cows is very like that at the bank barn and such gable entries are not unusual in the Dales in the nineteenth century (Fig. 10.62).



Fig. 10.62 Thorns 8, Back Hools Barn, in 2016 (Mark Woronowski)

The estimated hay storage, however, is 168m³ which is less than half that of the six-bay bank barn where twenty-eight cows could have been overwintered. The roof trusses have fallen but were nineteenth-century bolted kingpost types as at the bank barn. Cyrillic script cargo marks can be seen as in the field barn with the cart arch. Apart from the barn width, differences include the quantity of re-used timbers for the interior lintels – the timbers are rotten and not understood but need investigation. Clay pipes were used for ventilation holes, rather than traditional stone-built vents. The architectural nature of the stonework is remarkable and suggests gentry builders rather than tenant farmers. Cut gritstone quoins exhibit good margin dressing with 'rock-faced' sides which is in a gentry tradition and a style later used by the railways for mass-produced dressed stonework such as bridges and embankments. The best-masoned quoins are on the gable front, whereas the east side has the same style but of poorer quality, so perhaps apprentices made these.

As at the bank barn there is a Horton Flag water trough with iron fixings which would have had leaded joints. The meadows around the barn are now full of rushes but the garth wall has some plough-scratched cobbles, perhaps from nineteenth-century improvements rather than old ploughing.

In all, the buildings suggest that field barns continued for several centuries although with structural alterations and additions.

²³ See Chapter 13.6 for detail on this aspect of the barn.

²⁴ See Chapter 13.6 for documentary detail.

8. Survey Conclusion

This specialist survey of a group of vernacular buildings has yielded a surprising amount of useful information about continuity and change at Thorns. The buildings are evidence of how people lived and farmed. There appears to be structural evidence of cruck construction which may go back to the sixteenth or possibly even the twelfth century. Although no cruck timber survives in Thorns, other hamlets nearby do have reused cruck timber (see Appendix 10.2): dendrochronology sampling from Long Preston and Langcliffe has produced timber felling dates around 1500 (see Appendix 10.3). The present farm building sites, however, mostly reflect three centuries of post-Dissolution cow keeping and hay production and a final period of nineteenth-century prosperity and rebuilding before decline and desertion at the end of that century.

There are many questions unanswered owing to the ruinous nature of the buildings. Archaeological excavation of some of the buildings may yield information about plan types, the sites of fireplaces or padstones or evidence of seventeenth-century rebuilding and, more importantly, what was there before the 'great rebuilding'.

The archaeology of vernacular buildings from late medieval times to the rebuilding of the seventeenth century has rarely been investigated in Yorkshire, or nationally, so there is little information available for comparison.

Note

A full photographic record of all buildings is lodged in the Project Archive.

9. Appendices

Appendix 10.1: Local date-stones potentially indicating the 'great rebuilding'

New Inn: 17 th -century house	Gauber: 17 th -century house, now a barn
Foredale: 1657, 1731	Lodge Hall: 1687
Nether Lodge: 1679	Blind Beck: 1659 (on spice cupboard)
Beecroft Hall: c. 1700, enlarged 1774	South House: 17 th century
High Birkwith: 1703	Borrins: 17 th -century window
Townend Farm, The Shaws: 1738	Colt Park: 1625, 1668
Top Farm, Selside: porch 1726	Barn near Lodge Hall: 1728
Fawber: c. 1720 on 'new' house	Harber: c. 1700 or 1747
The Raw (House): 1727	The Raw (Farm): 1723
North Cote: 18 th -century house	Greengates, Brackenbottom: 1781
Brackenbottom: 1816	

Appendix 10.2: Reused crucks noted by Armstrong and Pacey in Upper Ribblesdale
(with the date of each settlement's first documentary mention)

Thorns (Furness Abbey) 1190. None found - all destroyed - but plinth, padstones, raised roofs were noted

Selside (Furness Abbey) 1186

Low Birkwith (Furness Abbey) 1189

Ingman Lodge/Lodge Hall (very large cruck barn site?) (Furness Abbey) 1377

Newhouses (Jervaulx Abbey) 1378

Brackenbottom (Jervaulx Abbey) 1550

Townhead farm, Foredale 1597

Borrins 1630

Gauber (unknown)

Appendix 10.3: Dendrochronology: felling dates of oak crucks and reused timber

Chapel House barn (Fountains Abbey): 1460

Kilnsey barn (Fountains Abbey): 1550, 1591-1616

Kilnsey barn (Fountains Abbey): after 1451, 1588-1613

Long Preston, barn (Bolton Priory): 1527

Langcliffe, farm house (Sawley Abbey): 1485-1505

Langcliffe, Winskill (Sawley Abbey) c. 1500 and c. 1560

In recent years dendrochronology dating has been applied to the few surviving timber buildings made from oak trees surviving in Craven, such as the timber-framed barn at Bolton Abbey (timber felled 1517/18). At Kettlewell the hall of a Coverham Abbey rectorial manor was dated to the 1460s. More common in Craven, however, are remains of timber from cruck-constructed buildings. Cut-down cruck blades and purlins of oak or ash are to be found in many field barns in the Dales. Barns, like houses, were rebuilt in the seventeenth and eighteenth centuries but good timber was not wasted. Some of the re-used cruck timber has produced dendro dates of c. 1480 (a house in Langcliffe), 1500 and 1560 (a monastic barn in Langcliffe), 1527 (a monastic barn in Long Preston) (VAG 2014, 113). The Vernacular Architecture Group's national cruck survey of 1973 (Alcock 1973) produced no records for Ribblesdale but the YVBSG field meeting in 1995 showed that re-used crucks were just as plentiful there. Some timbers at Low Birkwith were recorded and drawn. There seems to be a correlation between former monastic farms and re-used crucks and the dendro dates indicate monastic rather than late seventeenth-century dates. Cruck timbers have been seen in much of Horton (Appendix 10.2). Sadly, few old timbers have survived in

Thorns, only Baltic timber of nineteenth-century date. Cruck buildings, however, have other features such as a good substantial plinth to make a level wall, padstones which may appear inside or outside or built into the wall, as at Battersby Barn at Lodge Hall, low rooflines for a steep thatched roof, and disturbance where crucks have been removed from the wall. Stonework of the sixteenth century tends to be of rather neat but thin walling stones with quoins being no thicker than the coursed stone. Thorns farmhouse has these features remaining in spite of heightening and additions, and a plinth has a padstone embedded in the wall where a cross-wall now sits. There was a large beam rotting in the grass that looks like oak.

Medieval timber was probably supplied from the Abbey's woodlands. After Dissolution timber must have been in short supply. In 1726 John Armitstead of Dubcote left 'all my loose pieces of oak wood' to repair a building (HLHG 1984, 31). Imported timber would have been scarce until a physical link was established between the navigable Humber and the Leeds-Liverpool Canal which reached Skipton in 1777, meaning large softwood timber for roof trusses became available to local carpenters. Suspension-bolted timber rather than traditional pegging was in use by the early nineteenth century. The partial remains of Baltic 'shipping marks' in Cyrillic script are seen at Thorns, but it is possible similar timber could have been imported through the west coast too.²⁵

Appendix 10.4: Cruck features

Cruck buildings leave other clues apart from reused cruck trusses and cruck purlins with their characteristic half-lap joints for wind braces, tie beams or collars.

These include a plinth of clearance boulders or large stones, a low eaves line, a steep roofline, a single storey, padstones, the imprint of a cruck foot in wall, and linear building. Early walling is well-coursed and all limestone. At Low Birkwith a double step plinth is similar to that at High Flat Barn and the three-bay building (Thorns 2) by Trackway no. 1.

No cruck timber seems to have survived at Thorns although structural features are evident.

Appendix 10.5: Tabulation of building structures and their date

The table below analyses dating sequences from the building data.

Firstly, there are the older linear buildings (in red) with a plinth, and padstones, all constructed of limestone and with thick walls of 700-800mm. There are some late plinths such as in the cart-arch barn but these are shallow plinths and probably for a foundation on a hillside.

Secondly, there are buildings of mixed limestone and sandstone walling, sandstone dressings and prominent through-stones (in blue). Four buildings have 'watershot' masonry (except the bank barn, cart-arch barn and Low Flat Barn which might be earlier) and sandstone flag roofing. There is a little reused timber (in the cart-arch barn roof and Back

²⁵ See Chapter 13.6 for documentary evidence of this.

Hools Barn). These have bolted-kingpost roof trusses except the cart-arch barn which has a simple morticed apex.

Slate throughs for coursing levels are seen in the Wash-house and Back Hools Barn.

Building number and Name	Plinth	Padstone	All Limestone (mm)	Mixed walling thinner	Sandstone dressings	Throughs	Water-shot	Roof	Plan	Truss
1 Farm house	X	X	X 750						L (linear)	
2 'House' by Track no. 1	X	X	X 650-700						L (linear)	
3 3-cell house	X		all sandstone						L (linear)	
4 Holme Barn	X	X	700-800						L-sh	
5 Capnut Barn			-						L (linear)	X
6 Low Flat Barn	X			X 550	X	X		Sst	L (linear)	X
7 High Flat Barn	X		X 870						L (linear)	
8 Back Hools Barn				X 550	X	slate	X	Slate		X
9 Cart barn	X			X 650	X	X	X added bay	Sst	L (linear)	X
10 Bank barn				X 500- 570	X	X		Sst		X
11 Wash-house				X 470	X		X	Slate	-	X
11b Privy				X	X					
Added dairy				X 570- 680	X	X	X	Sst		

X = present; the colour coding differentiates between those elements which probably pre-date the 17th century (shown in red) and those that post date it (shown in blue)

Appendix 10.6: Inventories relating to Thorns

Inventories were made, following a death, incorporating lists of items remaining in all the rooms in the deceased person's house. The few inventories concerning Thorns are from the early eighteenth century and indicate that all dwellings were of two cells.²⁶ The farmhouse typically has a bodystead (or housebody) and parlour and dairy downstairs. In the inventories only one house has mention of chambers above and appears fully two-storey. Some mentioned lofts but others made no mention of upper rooms so these could have been single-storey cruck houses. The list of goods in inventories relates to cows which would have been housed in winter and to furnishings. It is not known if one of those listed below relates to this two-storey house:

1707 no mention of upper rooms

1716 yeoman house, two fireplaces which suggests upper rooms, but none is mentioned

1728 only one dwelling was two-storey with full chambers

1731 lofts over ground floor rooms suggest low eaves and cruck building

1742 one chamber only, not two.

The possible house by Trackway no. 1 (Thorns 2) with a double-step plinth retains two and a half bays and an added agricultural cell, possibly a cart shed. Four cells in all.

Thorns farm house (Thorns 1) is of two cells but was raised to two storeys. It has two further cells in an agricultural end beyond the living area, giving four cells in all, like the house by the trackway.

The three-cell house (Thorns 3) to the north-east seems smaller. Two houses (Thorns 1 and 2) both have a total of four cells whilst this house has only three.

11. Glossary of terms

Baulks or hay-baulks – hay storage area over the shippon

Bodystead – the main living room

Boose – standing for one cow in a shippon, usually with paired and cobbled standings for two cows

Boskins – the partitions of timber, or slate and timber, separating the booses

Bressumer – a horizontal timber spanning a fireplace and supporting its hood or chimney

Byre – cowhouse or shippon or mistal

Chamfer stop – where decorative mouldings or simple chamfers on timber beams finish or stop

Collar – a short horizontal timber between the principal rafters in a roof truss

Corbel – projecting block that supports something above such as roof coping stones

Cruck halving – this is a half-lap joint where two timber members are joined together by cutting halfway into both timbers. It is normally seen in cruck framing whereas most timber framing uses mortice and tenon joints

Downhouse – see bodystead

²⁶ See Chapter 14.7 for further discussion of wills and inventories.

Drip moulding – a cornice along the face of a building to deflect rainwater from doors and windows

Field barn, field house or field laithe – a small barn out in the fields for overwintering a few dairy cows and their meadow hay fodder. The meadow, fertilised by the barn manure in spring, was left to grow as the cows moved up to the summer pastures

Foddergang – the feeding passage where the farmer forked the hay to the cows

Forking hole – upper windows for forking dried and loose meadow hay into the hayloft or baulks

Garth or fold yard – yard around a field barn usually with a trough or water supply

Groop – the paved drain in the shippon marking the edge of the booses

Half-lap joint – see cruck halving

Housebody or house or firehouse – see bodystead

Impost block – a horizontal block between jamb and lintel

Kingpost – a central vertical timber below the apex of trusses

Linear building – a building several cells long but only one cell deep

Mew – hay storage area which was filled from floor to rafters in late summer

Mucking-out hole – a small window where the valuable manure was scooped out of the shippon and put into the midden heap ready for manuring the meadow in spring

Ogee – a decorative moulding with an ‘S’ profile

Ovolo – a decorative moulding with a rounded profile

Parlour – a private room within a dwelling, often used as sleeping quarters for husband and wife

Pent roof – one with only one sloping surface, like a lean-to

Principal rafter – diagonal upper timbers in a roof truss, supporting the purlins

Purlins – horizontal timbers along the length of a roof, resting on the principal rafters and supporting the common rafters

Quoins – cornerstones of a building

Rudstake/rudster – the timber pole in the boose used to tie up the long-horned cow in winter months

Scarfed – a way of lengthening timber by joining on further lengths using a scarf joint

Settle stones – stones marking the edge of the raised booses and the lower groop

Shippon (or **mistal** from Grassington southward) – the cowhouse

Skellbuse – the partition structure separating the shippon from the mew and, depending on plan, also marking the foddergang

Stop edge – well-made timbers with chamfered edges and chamfer stops

Tie beam – the main horizontal timber in a roof truss

Truss – a timber structure forming the triangular supports in a roof, usually with a tie-beam and two principal rafters which support the ridge piece

Waney – describes a timber beam that shows traces of bark and outer sapwood and is often not fully squared to shape because it is not thick enough

Wind brace – diagonal timbers between the purlins and principal rafters which stiffen the roof

GEOPHYSICAL SURVEYING

Stephen Eastmead



Fig. 11.1 Bartington gradiometer operated by SWAAG volunteer Mike Keenan (SWAAG)

Contents

1. Introduction
2. Location
3. Methodology

1. Introduction

The Swaledale and Arkengarthdale Archaeology Group (SWAAG) carried out a geophysical survey of Thorns deserted settlement, near Ribbleshead. In addition, a GNSS survey of a number of ruined buildings and walls in one of the areas was carried out using a ProMark PM120 GPS/GLONASS receiver.

The surveys were carried out on 19 April 2016. This report includes the survey results.

2. Location

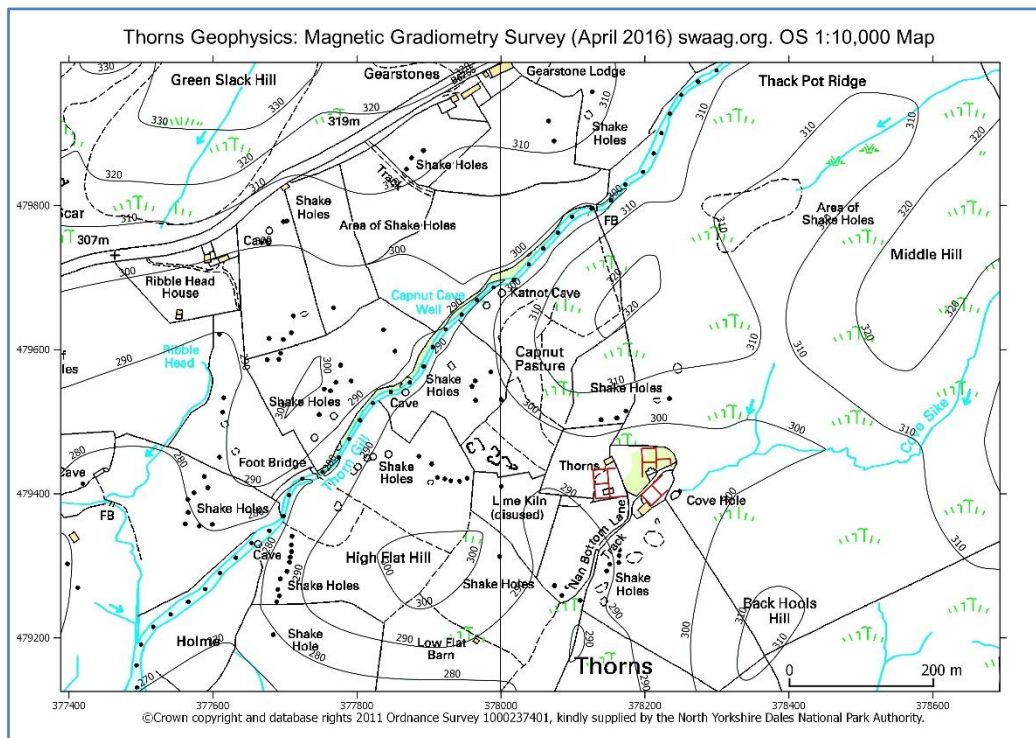


Fig. 11.2 Base map with survey grids in red (© YDNPA)

Thorns is located to the south of the Ingleton to Hawes B6255 road, close to Ribblehead and is on the Ribble Way footpath. The map (Fig. 11.2) shows the location of survey grids in red, and the Google Earth image (Fig. 11.3) is an aerial view of the survey area.



Fig. 11.3 Google Earth image with survey grids in yellow

The Thorns settlement is located on limestone, and the shallow soil is not ideal for a magnetic survey.

The Environment Agency has included the Thorns area in their LiDAR aerial surveys. The survey grids are outlined in red on the LiDAR image (Fig. 11.4) below. Incident illumination is from 300° and 40° azimuth.

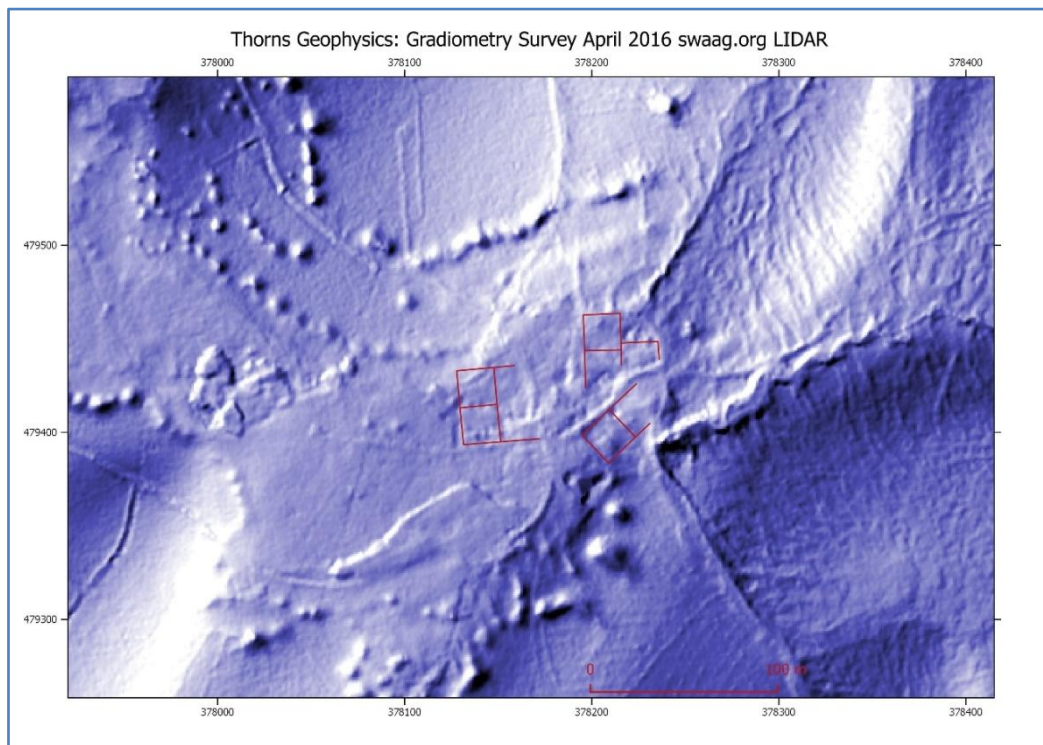


Fig.

Fig. 11.4 LiDAR image with survey grids in red

3. Geophysical Survey Method

The shallow soils ruled out using the RM85 Resistivity Meter, so only a magnetic survey using the Bartington 601-2 Gradiometer was carried out. The survey settings and post survey processing are listed in the accompanying metadata table.

Data processing was performed using TerraSurveyor Version: 3.0.29.1 and mapping using QGIS Version 2.12.3.

Coordinate System

Graphical Information Systems such as QGIS (qgis.org) use six-digit British National Grid coordinates. For example, Thorns is SD78270 79394 which is equivalent to 378270 479394.

Magnetic Gradiometry Results

Three sites were surveyed at Thorns in small fields bounded by dry-stone walls. For each site the results are reported in three formats:

Metadata	
Filename:	Thorns-SPE-Processed2Composite.xcp
Instrument Type:	Grad 601 (Magnetometer)
Units:	nT
Direction of 1st Traverse:	90 deg
Collection Method:	ZigZag
Sensors:	2 @ 1.00 m spacing.
Dummy Value:	2047.5
Dimensions	
Grid Size:	20 m x 20 m
X Interval:	0.25 m
Y Interval:	1 m
Stats	
Max:	40.00
Min:	-30.00
Std Dev:	10.84
Mean:	4.67
Median:	3.41
Composite Area:	0.96 ha
Surveyed Area:	0.29835 ha
Processes: 2	
1	Base Layer
2	Clip from -30.00 to 40.00 nT

a) Fig. 11.5, Greyscale image.

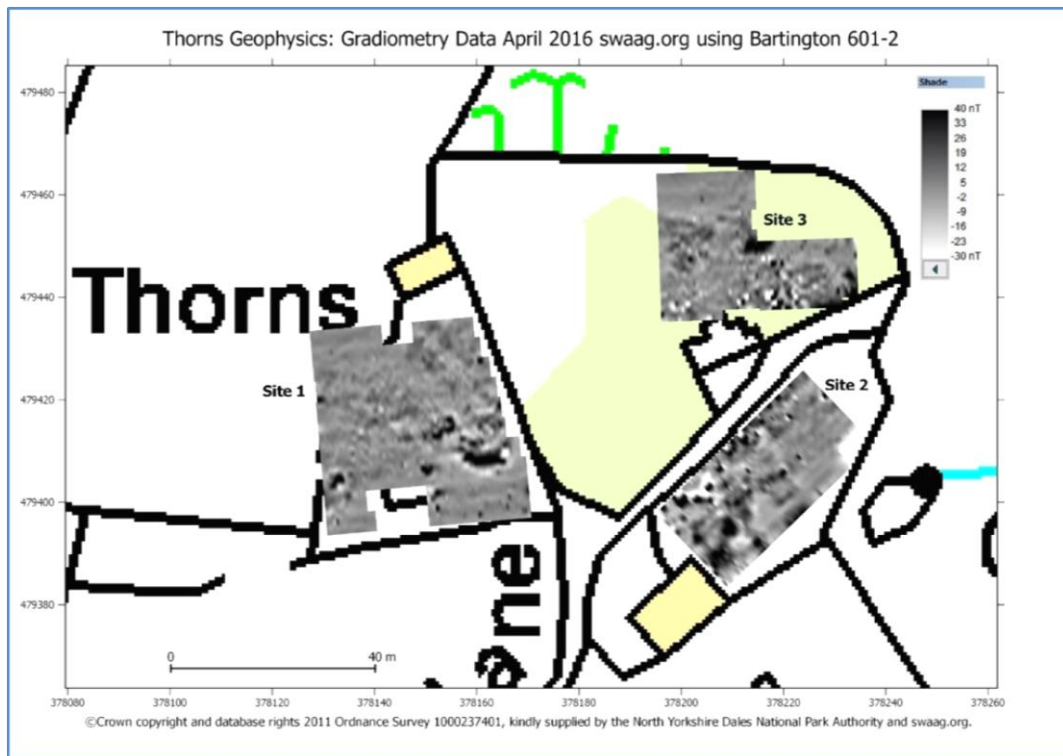


Fig. 11.5 Magnetic gradiometry: greyscale image

b) Fig. 11.6, Greyscale image with very high results shown in red and very low results shown in blue.

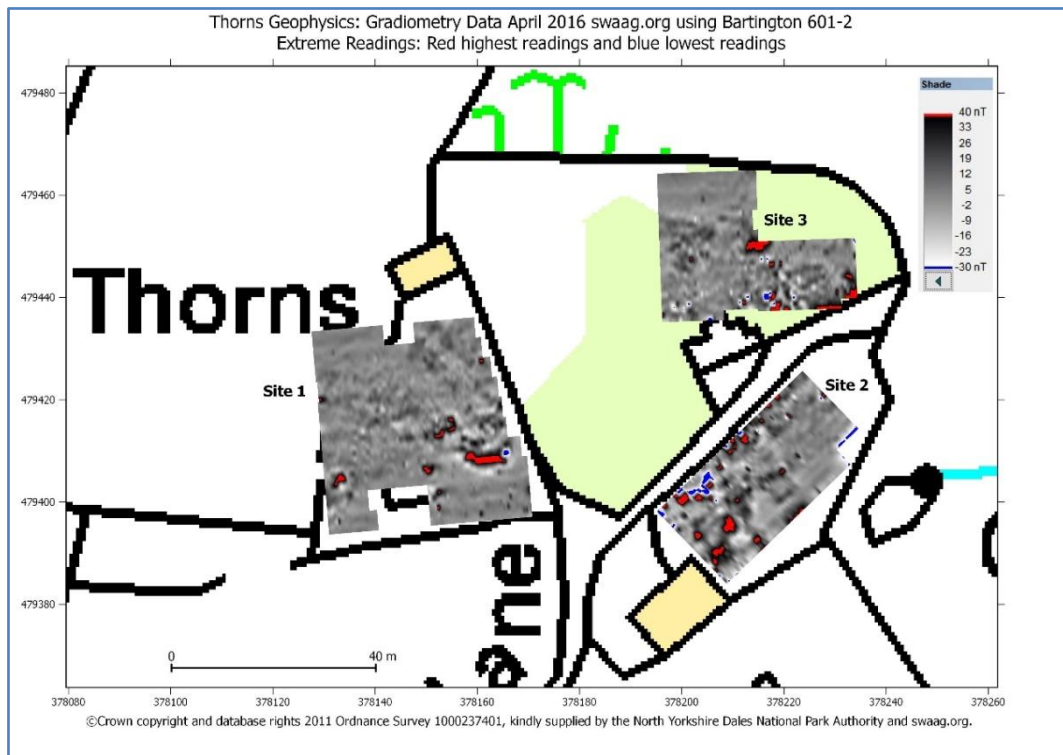


Fig. 11.6 Greyscale image showing very high and very low results

c) Fig. 11.7, as for Figure 11.6 but with banded contours.

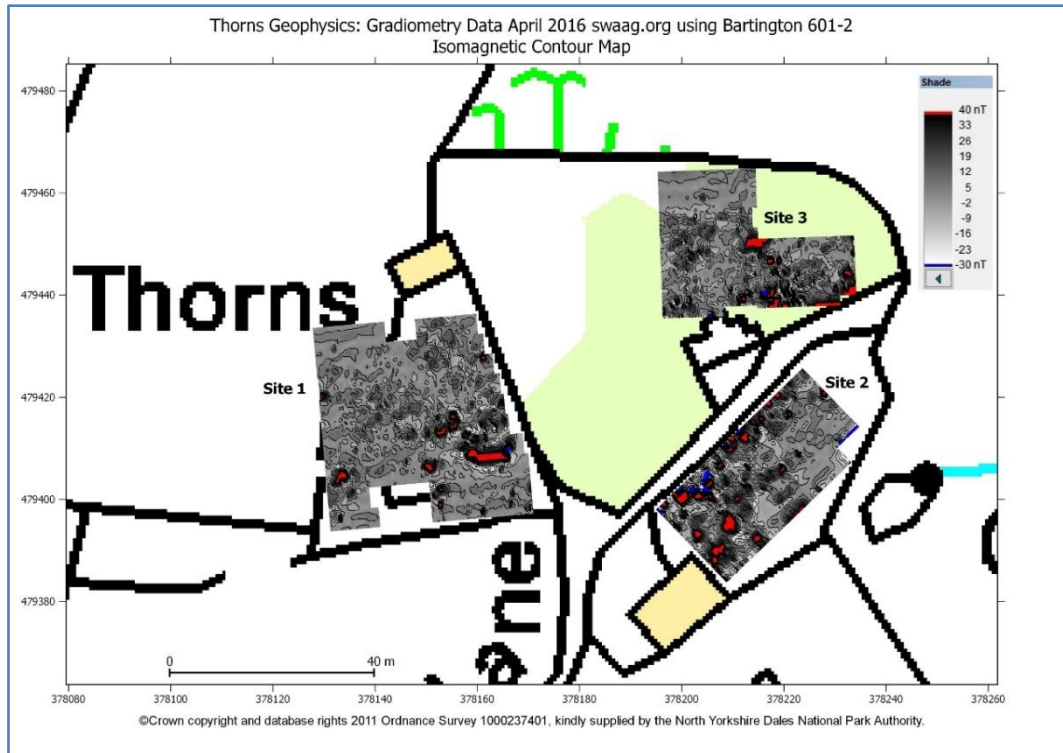


Fig. 11.7 Greyscale image with banded contours

Stray ferrous or iron objects are commonly found scattered over modern fields. These show up as strong bipolar signals where you get a very high and a very low reading close together. In Fig. 11.8 the ferrous bipolar signals are circled in red.

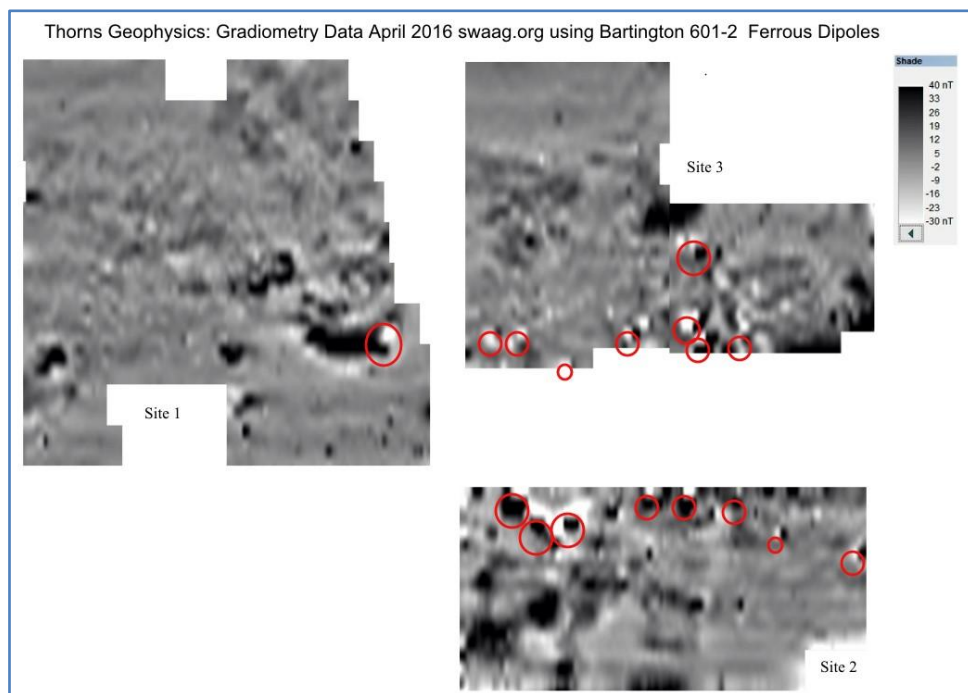


Fig. 11.8 Greyscale image showing ferrous bipolar signals

Most of the bipolar signals are close to dry-stone walls and may be due to wall-top wire placed to stop sheep jumping over them (Fig. 11.9).



Fig. 11.9 Wall-top wiring adjacent to survey site 2

The general appearance of the magnetic data suggests that most of the features are geological. The thin soils reduce the chance of ditches or foundations being found. The most likely archaeological features to be identified would be areas where burning has taken place, such as ovens, fires, kilns and metal working. In Fig. 11.10 a series of likely areas of strong positive results have been identified with a **C**. The area **A** and perhaps **B** show some short linear features which may be worth investigating to determine if they are geological or archaeological.

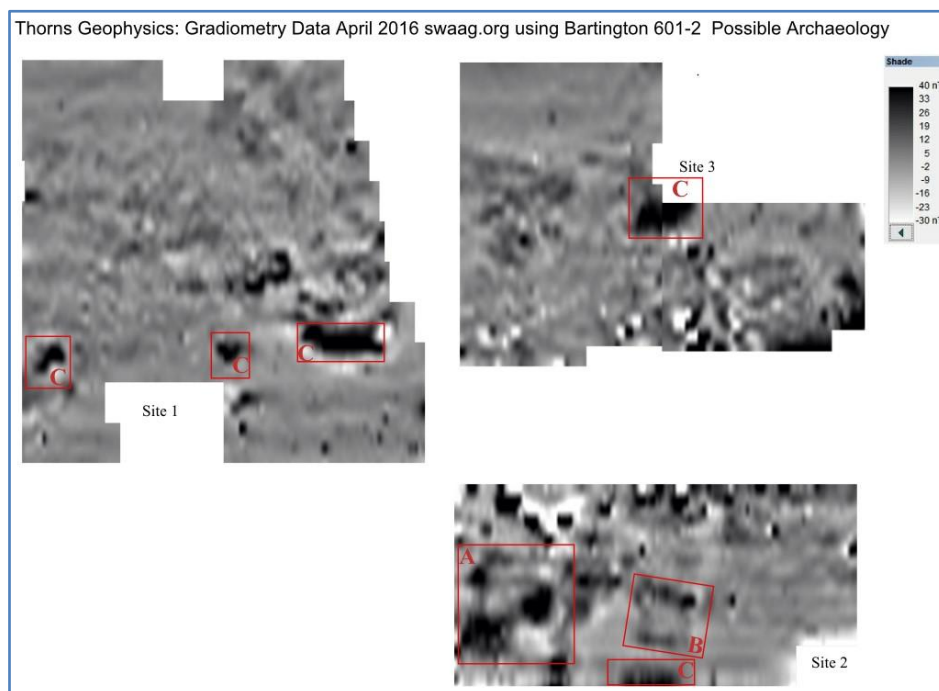


Fig. 11.10 Localities with potential archaeological significance

The results of the GNSS survey are shown below: Fig. 11.11 shows the outline of the boundary walls for Areas 1 and 3 plus selected topographic features. Fig. 11.12 shows the same data as Figure 11.11 plus the outlines of the geophysical survey grids to allow a comparison between the geophysical data and the topographical features. Figs. 11.13 and 11.14 show the data with a superimposed OS grid to help in the location of features. Fig. 11.15 shows the GNSS data plotted over the LiDAR image of the area.

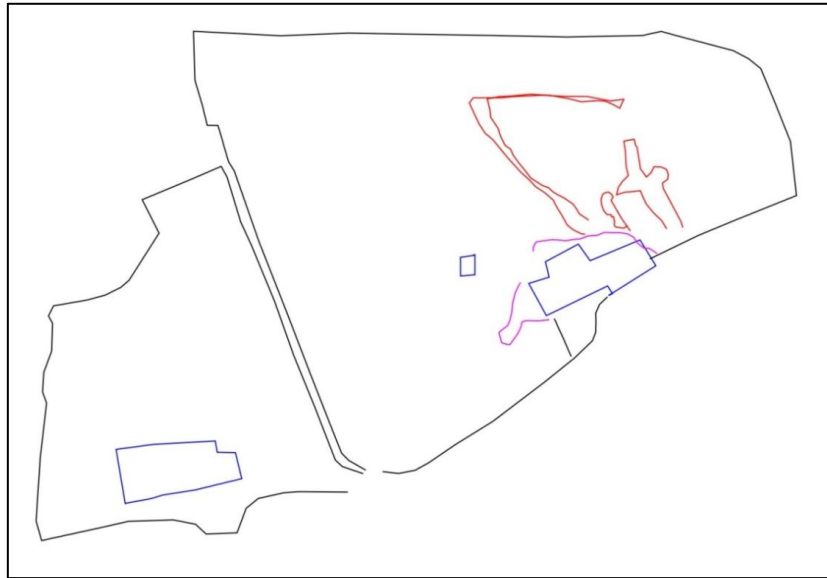


Fig. 11.11 GNSS survey data

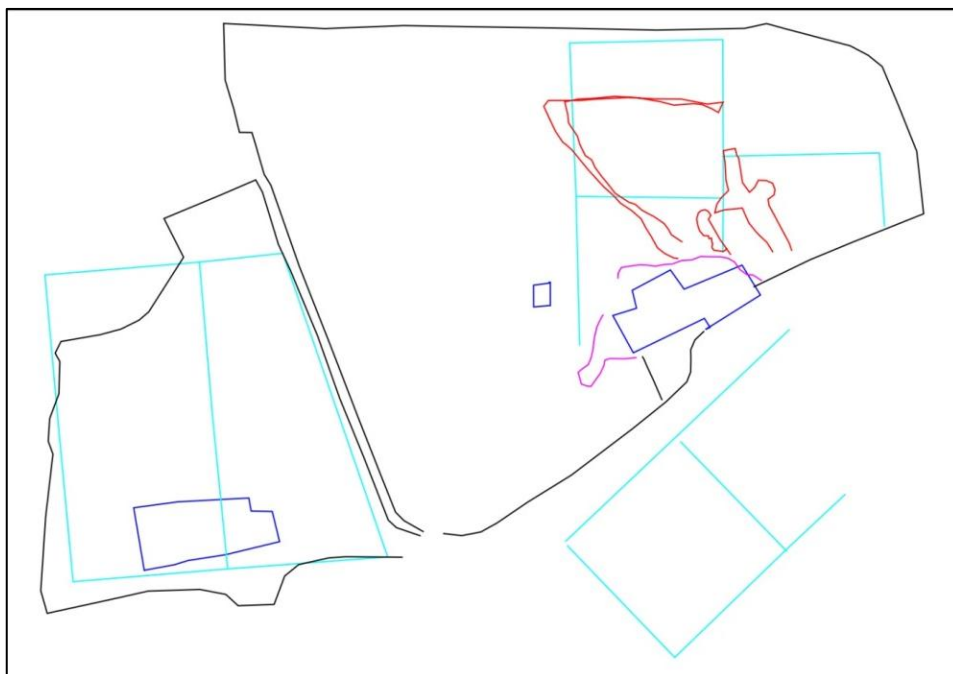


Fig. 11.12 GNSS data including geophysical survey grids

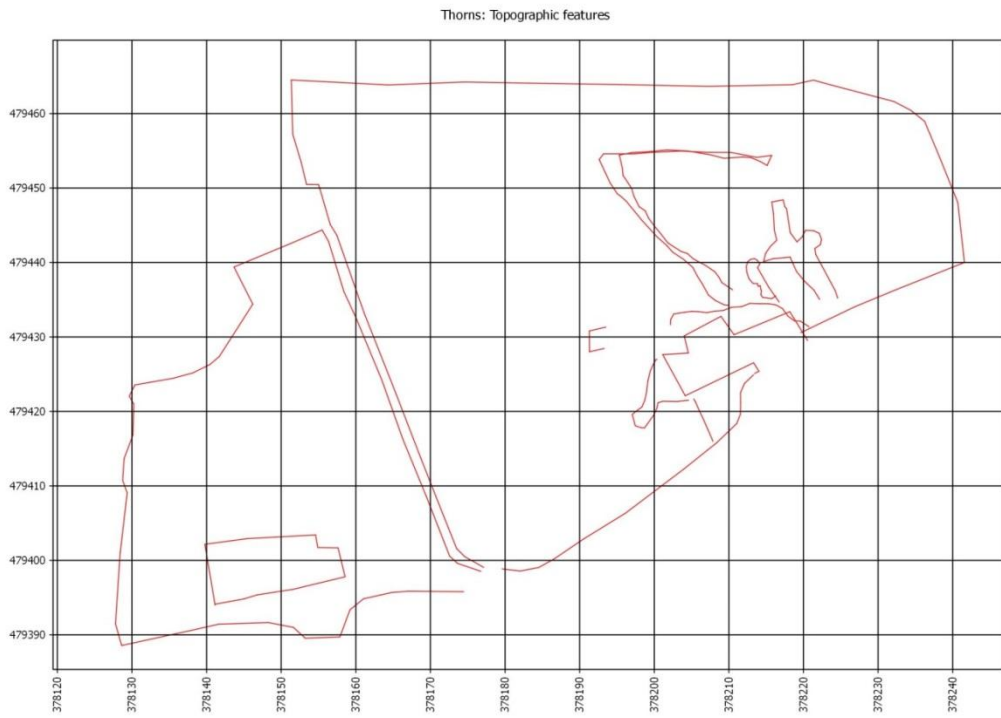


Fig. 11.13 GNSS data with superimposed OS grid



Fig. 11.14 GNSS data with survey grids and superimposed OS grid

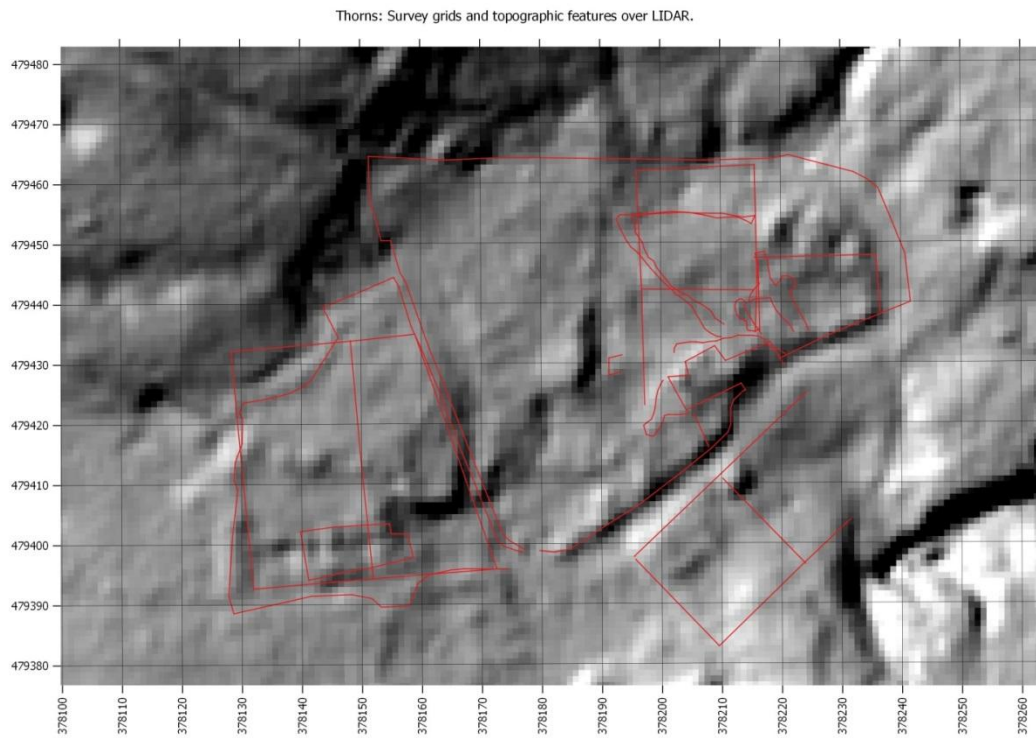


Fig. 11.15, GNSS data superimposed over LiDAR image

Personnel

The following SWAAG members conducted the survey: David Brooks, Andrea Dixon, Mike Keenan, Alan Mills, Robert Nicholson and Mike Walton.

Data processing was carried out by Stephen Eastmead.

SWAAG acknowledges the support of the Heritage Lottery Fund which, as part of the SWAAG Big Dig project (2013 through 2015), funded the purchase of the Bartington Grad601-2 Gradiometer used at Thorns.

EXCAVATION



Fig. 12.1 A 'Band of Sisters': volunteers enjoying time out while excavating Trench 11 (David Johnson)

Contents

1. Introduction
2. Methodology
3. Results
4. Finds report
5. Staffing

1. Introduction

From the results of geophysical and measured-plan surveying, targeted excavation was decided upon and agreed with the landowner, and was undertaken in Year 2 according to what had been proposed in the Project Design. The aims were to investigate selected site components showing as earthworks or rubble spreads. Targeted rather than open-area excavation was employed. As agreed at a site meeting on 8 February 2016 with Miles Johnson, the YDNPA's Senior Historic Environment Officer, features considered for excavation were targeted, with less than 25 per cent of any feature to be excavated, namely:

Feature 1 (see Figure 10.3, 'Added dairy') is the part-standing house and the intention here was to remove fallen rubble from the connecting doorway from the house interior to the rear dairy outshut to determine if the two were on one level and what the floors consisted of.

Feature 2 (see Figure 10.10) shows as a building platform on the western edge of the settlement, also with an extensive rubble spread. The intention was that selective removal of rubble would reveal part of the rear-outshut and west-gable wall footings and any surviving floor surface, so two trenches and two small test pits were delimited. Here, too, the emphasis was on removing rubble.

Feature 3 (see Figure 10.12) is an elongated building platform with a rubble spread, within the same enclosure as the partly-standing house, where two trenches were designed to investigate possible doorways into the building and between two bays within it, to include the intervening floor and walls; the second to investigate the degree of survival, or existence, of a possible fireplace in a gable wall. These trenches essentially entailed removal of fallen rubble rather than actual excavation of any ground surface.

Feature 13 (see Figure 15.16) consists of two contiguous earthwork platforms close to the wash-house, with 'lumps and bumps' nearby, hypothesised as a building with adjacent garden. There were very slight traces of wall footings visible through the turf and a small trench was laid out to answer questions about the feature's form and function.

Well (see Figure 12.11), as shown on the OS First Edition at the rear of the enclosure containing Features 1 and 3. No evidence was to be seen on the surface of the well so the specific aim here was to test if it is still there under the modern ground surface and if it was a built well or an enhanced natural spring.

2. Methodology

1. Procedures on site adhered to the *General procedure for opening, excavating and closing trenches*, compiled by Mark Hewitt, Wildlife Conservation Officer for the YDNPA, in 2013; and the Chartered Institute for Archaeologists' *Standard and guidance for archaeological excavation* 2014 (www.archaeologists.net/codes/ifa). No trench approached HSE's critical 1.2m depth.
2. Turf and top soil were removed entirely by hand and were stored on Visqueen sheeting. No wheelbarrows or machinery were used. Topsoil was stored separately from subsoil. As no trench remained live for more than five days turves were stacked around the spoilheaps grass-to-grass and soil-to-soil to form a retaining wall for the soil, though soil amounts were generally very limited. Each trench had its own discrete spoilheap.
3. Each trench was photo-cleaned, digitally photographed and planned using 1 x 1m planning frames as determined by excavation. A detailed digital photographic record was compiled at all stages of the project and has been archived in accordance with CIfA guidance.
4. Excavation was furthered using hand-trowels down to a structural or natural basal surface.
5. Proforma Context recording sheets were compiled and archived as per normal practice.
6. All artefacts were given a small finds number and logged and bagged according to best practice for post-excavation analysis.
7. Any obviously modern items unearthed during excavation, such as modern shotgun cartridges or sheep bones, were recorded as objects in the Site Book but not assigned

individual small finds numbers, and not physically retained in the project archive. Similarly, fragments of roofing slate or flag, as well as lime mortar and coal, were noted but not allocated small finds numbers and not retained.

8. All trenches were backfilled and turf and stone relaid. Topsoil was replaced after subsoil and stone. Monitoring over ensuing months ensured stock disturbance and weed infestation were minimised.

9. Trenches laid out on earthwork features surviving as turf-covered earthworks had all removed rubble stacked on plastic sheeting.

10. A Site Book was maintained by the Archaeology Project Manager.

3. Results

Trench 1

Trench 1 (2.5m north-south by 1.9m east-west) was laid out across the north-west corner of the ruined building that survives only as an amorphous rubble spread, seen as one enters the settlement from the west on Trackway no. 6, to encompass the north wall of what appeared to be a small rear outshut, the inner face of the building's west gable wall and a section of internal floor. Nine contexts were recognised within the trench.

Context 101 was a deep layer of demolition and/or collapse rubble that filled the entire area within the trench apart from on the wall tops (Fig. 12.2). It extended 2.2m by 1.3m and had a maximum depth of 850mm. It mostly consisted of angular limestone pieces of very variable shape and size, most of which would have been wall fillings rather than facing stones. There were also broken fragments of blue-grey roofing slate and thin flagstone pieces that may also have been used as roofing. It was an unsorted mass of rubble with no stratification whatsoever, resulting either from deliberate demolition of the building, pushing inwards unwanted stone, or from slow decay and collapse of the abandoned building. Two hand-forged nails were logged within the rubble (small find/sf 106 and 115) as was a representative piece of fire-blackened sandstone (sf 116).



Fig. 12.2 Trench 1, rubble spread (101) (John Asher)

Context 102 was also a layer resulting from demolition, but outside the building along the rear outshut wall, extending 2m along the wall with an excavated width of 700mm.

Approximately half of the rubble consisted of broken, thin blue-grey roofing slate that had clearly been thrown down against the wall.

Context 103 was the north (rear) wall of the outshut, exposed within the trench for a length of 2.2m. It was excavated down to its basal course, set on bedrock, and surviving wall height was 850mm over nine courses. The wall is 550-600mm in width, built almost entirely of limestone finished in a coursed manner with minimal lime mortar visible. The wall top as seen now is level so the building had clearly been deliberately taken down with decent re-usable stone removed down to the current level.

Context 104 was that part of the internal floor surface surviving in the eastern part of the trench, extending 1.16m by 690mm. It was composed of rounded, brown sandstone cobbles sourced from outside the vicinity of Thorns (Fig. 12.3). The cobbles had been set in a matrix dominated by lime mortar (Context 107) making the matrix and the cobbles together 120mm thick; the cobbles had been laid down in a somewhat haphazard manner, not all aligned on the same north-south axis, and individual long axis lengths ranged from 100-150mm. The cobbling had been laid to butt against the north wall of the outshut. One large fragment of charcoal (sf 102) was logged within the lime matrix (107) along with one sherd of brown-glazed redware pottery (sf 101).



Fig. 12.3 Trench 1, cobbled floor (104) on the east side of the trench (Chris Bonsall)

Context 105 was natural limestone bedrock that had been cut into when the building was constructed: the rear outshut wall butted against the vertical limestone face created by this cutting back process.

Context 106 was the west wall of the building which was made with well-coursed limestone blocks, surviving as eight courses to an even height of 750mm; it had minimal lime mortar visible within it. Within the trench it was 2m in length; only its internal face was exposed in the trench (Fig. 12.4).



Fig. 12.4 Trench 1, west wall (106) (Chris Bonsall)

Context 108 was the western part of the floor surface which was similar to (104) in that it was composed of brown sandstone cobbles set in a lime-mortar matrix, but it differed in that these had been set on their long edge and had been laid in clear parallel rows to give a very neat effect, aligned west-east. On their eastern edge the cobbles were confined and bounded by a row of larger cobbles set at right-angles to the rest (Fig. 12.5).



Fig. 12.5 Trench 1, cobbled floor (108) on the west side of the trench (Chris Bonsall)

Context 109 was a narrow strip of more or less level limestone bedrock which clearly underlay the entire floor area (104 and 108) which had been levelled off with lime mortar to give an even base layer for the cobbles. The exposed strip was 1.2m long by c. 300mm wide. The bedrock surface had been created by cutting back into a natural limestone bank to create a level platform on which to build the structure.

Fig. 12.6 shows final contexts.

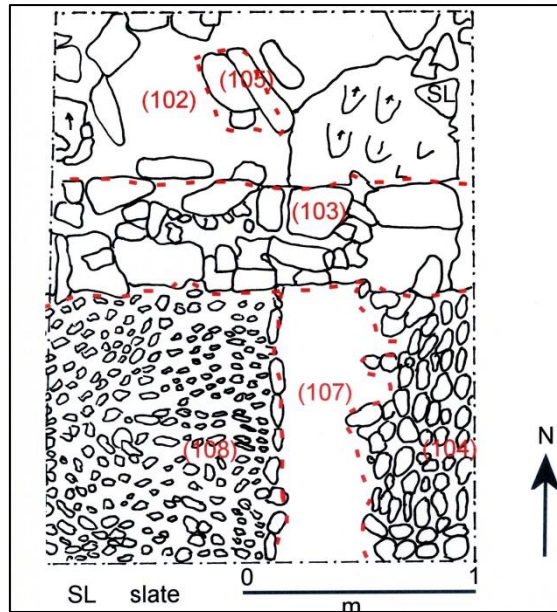


Fig. 12.6 Trench 1, final contexts

Trench 2

Six contexts were delimited in Trench 2 (measuring 2.8m east-west by 2.1m north-south) which was laid out to encompass the middle section of the west gable wall and any surviving internal floor, and to test if this wall contained the remains of a fireplace or hearth.

Context 201 was the same rubble demolition or collapse layer as (101), again reaching the present height of the west wall. Small finds recovered from 201 were an iron window stay (sf 104), an iron strap hinge (sf 105), a thin sheet of unidentifiable iron (sf 109), an unidentifiable iron concretion (sf 111) and a lump of coke (sf 112). In addition, several fragments of thin, fire-reddened flagstone were recovered, none seen *in situ* thus not from a hearth in this position.

Context 202 was the west wall of the building, seen in a section 2.1m long and with a uniform width of 600mm. It survives to a height of 600mm in five courses in this trench, thus rather lower than seen in Trench 1 (Fig. 12.7). It is entirely composed of limestone with minimal lime mortar visible.



Fig. 12.7 Trench 2, west wall (202) (Chris Bonsall)

Context 203 was a layer of demolition rubble outside the wall, seen in a strip 120mm wide and 200mm deep, composed of small angular limestone pieces. Several fragments of a dark green glass bottle (sf 103) were seen among the rubble.

Context 204 was the same lime mortar matrix as (107) into which the cobble floor had been laid though in Trench 2 much of it had been removed, presumably when the building was demolished, so the matrix was discontinuous.

Context 205 was a narrow (400mm wide) strip of brown sandstone cobbles seen along the east edge of the trench (Fig. 12.8): the bulk of cobbles in this part of the building had long since been stripped and taken out, probably at demolition.



Fig. 12.8 Trench 2, cobbled floor (205) and bedrock (206) (Chris Bonsall)

Similarly, Context 206 was the same limestone bedrock sub-base as (109), levelled off in the same manner with the lime-mortar matrix (107) laid across it. In this trench the bedrock was exposed over the majority of the internal area, extending 2.1m by 1.8m (see Figure 12.8).

Fig. 12.9 shows the final contexts in Trench 2.

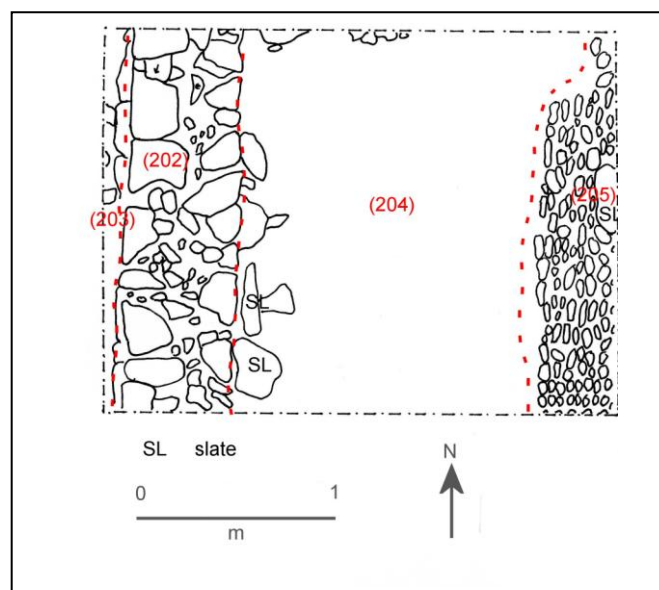


Fig. 12.9 Trench 2, final contexts

Trench 3

Four contexts were recorded in Trench 3 (measuring 1.6m east-west by 600mm north-south).

This small test trench was conceived to investigate a dip in the turf cover over the line of the building's front wall which may have been a doorway. The thin turf cover was stripped off and Context 301 was removed by hand; it was mainly composed of limestone demolition rubble, up to the height of the front wall. It also contained one large Helwith Bridge 'blue flag' found lying at an acute angle across the context and a few random sandstone pieces. When cleared out, the doorway was 1.1m wide by 600mm deep with the rubble 600mm thick.

Context 302 was the west door head, which was actually the south end of the west wall. It was 800mm in length within the trench and the wall was 200mm wide, again within the trench. Unlike most of the walls, the door head was made up of large, squared semi-dressed sandstone blocks with the actual basal jamb stone 800mm long (600mm of it being within the trench) by 200mm wide by 400mm high: it was found in a vertical position.

The opposite door head (Context 304), within the south wall of the building, was also made up of squared, semi-dressed sandstone blocks surviving to three courses. Within the trench this measured 300mm along the wall by 600mm across the full width of the wall.

Between (302) and (304) the threshold was excavated down to the threshold base, namely a large slab of Helwith Bridge 'blue flag', 900mm long by 400mm wide; the remaining space on the east side of the threshold within the doorway was filled with small slabs of the same rock.

Fig. 12.10 shows Trench 3 on completion of excavation.



Fig. 12.10 Trench 3 on completion of excavation (Chris Bonsall)

Test pit 4

In order to understand the nature of the rear outshut wall east of Trench 1, the small L-shaped Test pit 4 was opened up (1.2m + 1.3m by 300-400mm), with just two contexts.

Context 401 was the same demolition layer seen in the other three trenches, composed of angular limestone pieces pushed off the walls as they were dismantled; this was a maximum of 400mm wide and ran the full length of the two walls, namely the east wall of the outshut and the north wall of the main building as far as the trench extended.

Context 2 was the wall lengths themselves, east of the north-east corner of the outshut, running 1.2m as the east outshut wall and 1.3m as part of the rear building wall. It was composed of coursed limestone with minimal lime mortar visible and, like the other excavated walls, it had been taken down to an even level with four courses visible in the trench, though it was by no means bottomed.

Test pit 5

No contexts were recognised in Test pit 5 (1.8m by 900mm).

This small test pit (1.8 north-south by 900mm east-west) was designed to locate what was marked on OS First Edition six-inch mapping as a 'Well' but which had no apparent remains visible on the surface. As soon as the turf was stripped back a set of three large roofing flags was seen lying prone, set against an enhanced natural limestone face 600mm high. At the foot of this face, protected by the largest flag (800 x 560mm), was the issue of a natural spring (Fig. 12.11) which had clearly been enhanced to serve as a water source for the settlement. At some later point, probably in the nineteenth century, the spring was tapped and a buried, stone-capped culvert was dug, 9m in length, to take the water to a buried storage tank, showing now as a grassy mound. From there, a buried cast-iron pipe carried water to feed a large flagstone trough in the fold yard at the bank barn though it is no longer functional.



Fig. 12.11 The enhanced spring, or well, in Test pit 5 (Chris Bonsall)

Trench 6

Eight contexts were recognised in this trench which extended 3.2m east-west by 2m north-south; it was laid out within the rubble spread of Feature 3, under a group of mature sycamore trees, on what appeared to be a dividing wall between the central and eastern bay of a ruined building with two parallel sandstone uprights just protruding through the rubble. There was no turf cover but nettle infestation was rife across the entire rubble spread.

Context 601 was a layer of unsorted rubble that had clearly been pushed into the building when it was demolished and most of the good walling stone taken away. The rubble covered the whole trench apart from along the top of what did prove to be a dividing wall. The rubble was predominantly sandstone though with some limestone and some broken roofing flagstones: one such flagstone was intact including the fixing hole at its apex. There was also one blue-grey roofing slate. Charcoal was seen among the rubble but not logged.

Seven small finds were logged consisting of pot, glass, metal and one large piece of burnt wood (see Tables 12.1 – 12.4 for details).

Clearance of nettles and rubble revealed the dividing wall (Context 602) between the central and eastern bays of the building. It was mostly composed of blocky sandstone with some blocky limestone, surviving to a maximum height of 650mm in four courses along its eastern face (in the east bay) and 550mm in five courses in the central bay. Width was a uniform 700mm and a 2m length of wall was exposed in the trench. The wall was well constructed with a lot of lime mortar visible between courses and in the central infill.

Beneath rubble layer (602), a layer of lime mortar (Context 603) was revealed within the central bay, exposed within the trench over an area 2m by 600mm. This was interpreted as a substrate into which sandstone flooring slabs (Context 604) had been laid: most had been robbed out, presumably at demolition, but a narrow band (200-250mm wide) of five small flags had been left along the base of the dividing wall in the central bay, well set within (603).

Beneath the rubble layer in the eastern bay, the same lime matrix (603) had a cobbled surface (605) impressed into it (Fig. 12.12), exposed in the trench over an area 1.7m by 505mm. The cobbles were all of sandstone and had been carefully selected for their size and roundness, though they had been laid in a random rather than a systematically-aligned pattern. This floor surface was determined as 300mm lower than (604) in the central bay.



Fig. 12.12 Trench 6, cobbled floor (605) (Chris Bonsall)

Clearance of rubble spread (601) also revealed the full height and purpose of the two vertical Yoredale Sandstone slabs. The north slab (Context 606) is 400mm wide by 85mm thick and stands above the floor surface to a height of 900mm; the south slab (Context 607) is 430mm wide by 95mm thick by 900mm high. Both have a large niche chipped out of their top corners facing into the central bay. Both had been carefully cut and shaped and were set half way through the dividing wall protruding slightly into the central bay, with a width of 800mm between them.

These two slabs framed a fireplace (Context 608) (Fig. 12.13) that was recessed into dividing wall (602). It is 400mm wide by 300mm deep by 550mm high, with coursed sandstone on each side of the actual grate and firebox recess, an intact flagstone base, and the cast-iron backplate still *in situ* complete with iron fixing brackets set through the wall. The

bulk of the cast-iron fireplace had been removed, presumably at demolition. Charcoal and coal were seen within the fireplace but not logged as small finds.



Fig. 12.13 Trench 6, fireplace (608) and fire surrounds (606 and 607) (Chris Bonsall)

Fig. 12.14 shows final contexts.

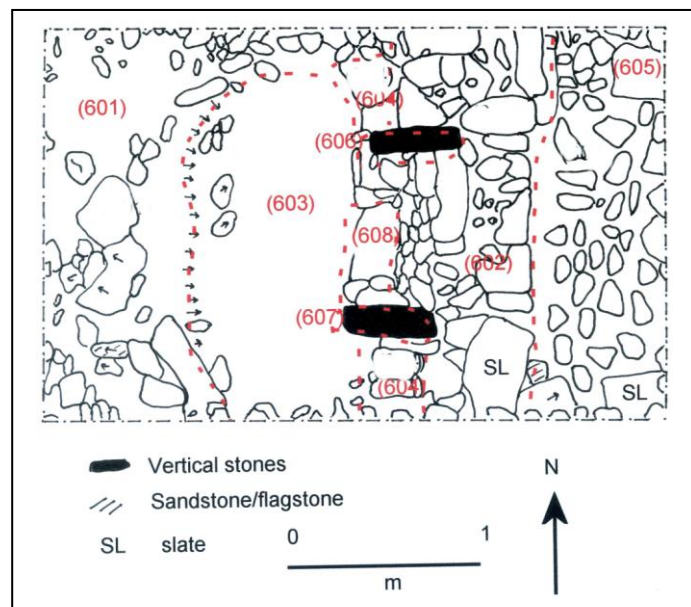


Fig. 12.14 Trench 6, final contexts

Trench 7

Trench 7 (3m north-south by 2.3m) was laid out to encompass part of the front (south) wall of the western bay of the same building, a section of wall dividing this bay from the central bay, and a section of the interior. Six contexts were recognised.

As with all the other trenches, Context 701 consisted of unsorted demolition rubble that had clearly been pushed into the building to roughly level it off. The vast majority consisted of sandstone though with some limestone and some flagstone roofing fragments. Small finds logged here consisted of pot sherds, a fragment of clay tobacco pipe stem (sf 134) and a fragment of an iron cooking cauldron (sf 137). This rubble filled the interior of the building as exposed in the trench.

Excavation revealed a 1.25m-length of the south wall of the western bay (Context 702) and 1.3m of the dividing wall between the western and central bays (Context 703). Both walls are 700mm wide and survive to a height above the internal floor level of 500mm in six courses (702) and 700mm in five courses (703). Both walls were strongly built and well mortared and both are dominated by blocky sandstone with some naturally-squared limestone blocks. At the south-eastern corner of the trench, at the eastern end of (702), is the external doorway with the (702) doorhead formed of a massive vertically-set sandstone slab lying on two basal courses: the slab measures 650mm in length by 380mm in visible (above-surface) height by 40 mm thick. The south end of (703) also had a similar-sized sandstone slab acting as the opposite door surround.

Between (702) and (703) the threshold was just seen as a rubble spread and no floor level was located though the presence of thirteen disturbed sandstone slabs may suggest they had formed the floor here. Outside the doorway were the remains of a small porch (Context 704). It was not tied in to the building walls so was a later addition. Like the doorway, it is 850mm wide and 900mm deep. On the west (left) side part of the sandstone coursing survives to a maximum height of 600mm though the opposite wall has largely been robbed out (Fig. 12.15). The slabs utilised averaged 400 x 400mm in size.



Fig. 12.15 Trench 7, porch (704) with the vertical pole, and walls (702 and 703)
(Chris Bonsall)

Removal of (701) within the building exposed a strip of *in situ* flagstones (Context 705) against the south wall (702) which form the remains of the western bay's floor; the 40mm-thick flagstones clearly extended into the bay beyond the confines of the trench and were seen for a width of 350mm and a length along the south wall of 700mm. Seen in the trench were four small (200 x 150mm) square flags laid against the wall with one 650mm-long flagstone next to them.

The surviving flags and the disturbed stone in the threshold had been set in a 100mm-thick bed of lime mortar (Context 706) which was visible where the flags had been removed as well as within the threshold and porch.

Fig. 12.16 shows the final contexts for Trench 7.

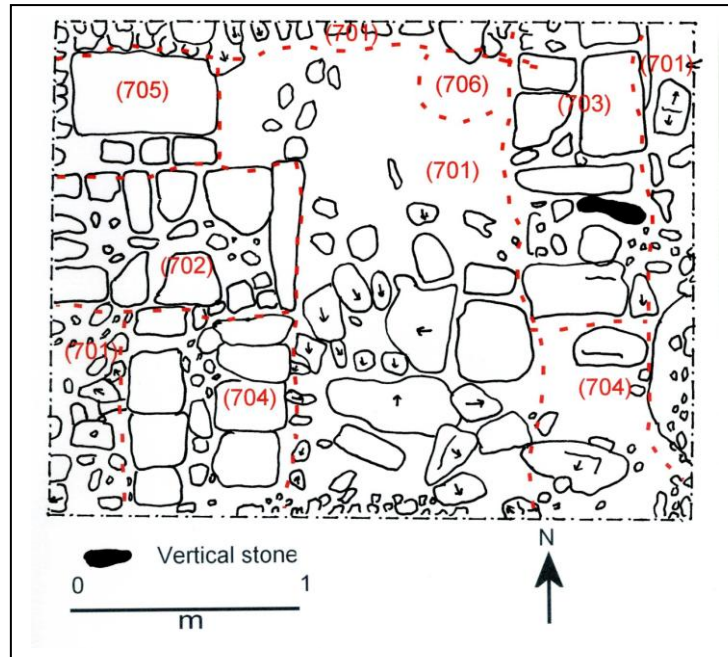


Fig. 12.16 Trench 7, final contexts

Trench 8

Trench 8 (measuring 2.2m north-south by 1.8m) was laid out along the western wall of the building containing Trenches 6 and 7, centrally placed along its length. It was laid out to determine the thickness of the west gable and to ascertain if any evidence of a fireplace remained. Four contexts were recognised in this trench.

Context 801 was the same demolition layer, here up to 750mm thick, levelled off at the height to which the walls had been demolished. The vast majority of stone was angular sandstone with limited amounts of limestone and some flagstone pieces including one complete roofing flag. Two pot sherds were logged from (801).

Context 802 was the west gable wall, exposed for a length of 1.6m; it was found to be 700mm in width and survived to a maximum height of 1m, in eleven courses, above the internal floor level.

Complete removal of (801) revealed what was interpreted as the building's original stone-surround fireplace complete with an added, more or less intact beehive bread oven set into the south side of the fireplace (Context 804). Unlike most examples of bread ovens which were made of sandstone, this one has a corbelled roof composed of thin flagstone pieces. The east end of the fireplace has a partly-surviving coursed sandstone wall set at right-angles to the gable, thereby suggesting that the fireplace originally had a stone lintel. The oven is 270mm wide by 300mm deep by 350mm high and has an intact flagstone base.

At some point in its life the building was remodelled and this process included closing off the bread oven and abandoning the original large open fireplace, replacing it with a smaller hearth with curving rear and sides (Context 803). The actual hearth and ash pit are broadly intact, the latter measuring 250mm wide by 280mm deep, the former 850mm wide by

750mm deep and 320mm high. The hearth still has its 980mm-long and 200mm-wide wrought-iron fire basket and tie-brackets in place (Fig. 12.17).



*Fig. 12.17 Trench 8, hearth (803) and fire basket
200mm scale (Chris Bonsall)*

Test pit 9

This test pit (1.5m east-west by 500mm) was set out to determine if the eastern bay, with its lower floor level, was coeval with the central and western bays of the building and if a doorway could be found. No contexts were recognised as all that was entailed was the removal of nettle growth and surface rubble. A doorway was found, 950mm wide and 700mm deep, bounded on the west side by a single squared sandstone slab (470 x 650mm) which also acted as the corner stone for the south wall of the central bay and the dividing wall between the central and eastern bays (Fig. 12.18). On the east side of the doorway two blocky sandstones formed the surviving lowest course of the wallhead. Excavation evidence strongly points to all three bays being coeval.



Fig. 12.18 Test pit 9, doorway, looking into the building (Chris Bonsall)

Trench 10

Trench 10 (measuring 3m NE-SW by 2m) was laid out across part of a grass-covered earthwork, designed to determine if it had been a domestic or agricultural building. Six contexts were recognised in this trench.

Context 1001 was the layer of unsorted demolition rubble seen in the other structures composed of 60 per cent limestone and 40 per cent sandstone with one broken roofing flagstone and some broken blue-grey roofing slate. It had been dumped to level off the building almost to the height of the walls as they were left, at 400mm above the internal floor surface. Thirty-nine small finds were logged within (1001) – fourteen pot sherds, thirteen window glass fragments, eleven metal items and one piece of leather – in addition to much lime mortar, lime plaster complete with coloured limewash, and a stone window mullion found broken in two joining pieces.

Context 1002 was allotted to 1.9m of the north-east gable wall, seen to be 600mm wide, straight sided and with a surviving height above the internal floor of 300mm in five well-mortared courses. It was strongly built with blocky stone and in the same limestone-sandstone proportion as (1001). This continued as the south (front) wall of the building – Context 1003, 2.25m long within the trench, 550mm wide and 450mm high in five courses internally. It, too, was strongly built, well mortared and limewashed. One metal object (sf 153) was logged from this wall.

Once the demolition layer had been removed within an L-shaped, 500mm-wide sondage within the building, a layer of lime mortar (Context 1004) was exposed 140mm thick. It was uniform in consistency and colour and contained numerous fragments or lumps of lime plaster some with limewash adhering to it. Eight fragments of window glass were logged as small finds and two pot sherds.

At the western end of the wall, on that edge of the trench, Context 1005 was assigned to the base of a window, 500mm parallel to the wall and 500mm the full width of the wall. Its base was 300mm above the internal floor level but it would originally have had a sill making the depth greater. What survives of the window base consisted of two small and thin limestone slabs and two squared and equally thin flagstone slabs, all about 200mm by 200mm. The mullion was found in (1004) adjacent to the window.

Once the lime mortar layer (1004) had been removed within the sondage a level floor composed of two large blue-grey slate slabs (Context 1006) was revealed, 900mm and 880mm long respectively, with three small squared pieces filling in the narrow gap between the large slabs and the gable wall, each 150 x 150mm (Fig. 12.19).



*Fig. 12.19 Trench 10, floor (1006) and walls (1002 and 1003)
(Chris Bonsall)*

Fig. 12.20 shows the final contexts in Trench 10.

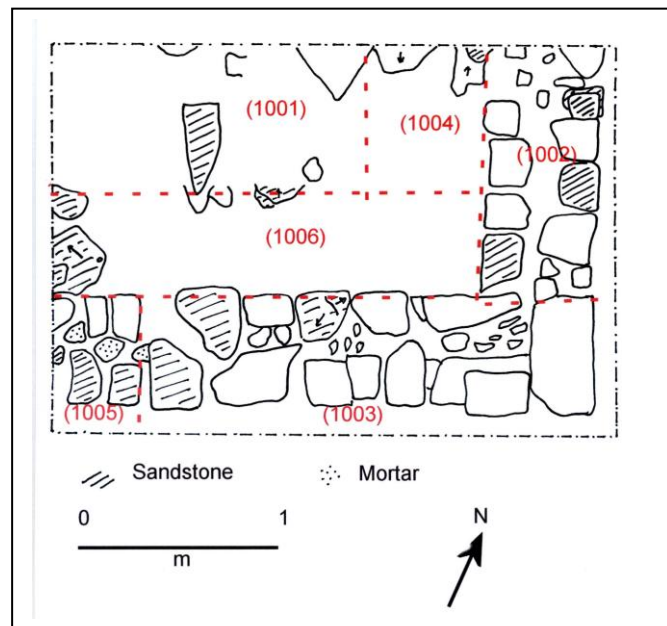


Fig. 12.20 Trench 10, final contexts

Trench 11

Trench 11 was laid out as a long-section, 1.5m wide by 7m long, and aligned NNW-SSE, across what was interpreted during the Ditch and Bank Survey as an external boundary feature – coded 1d – rather than an internal field boundary. The length was determined by the combined dimensions of the ditch, the steep west bank and the more gently-rising east slope of the ditch. As much of the feature's course is covered in dense soft-rush growth, the trench was sited where de-turfing would prove less taxing, namely with more grass than rushes. Nine contexts were recognised. No finds were recorded.

Context 1101 was the topsoil layer across the entire trench that consisted of very dark grey, unconsolidated silty sand whose depth varied from 90-220mm with the least depth seen on the bank top, a depth of 190mm on the west (outer) slope of the bank and the greatest in the ditch, as would be expected given the effects of gravitational pull downslope over the centuries since it was dug.

Context 1102 was seen only on the bank top, over an east-west width of 1.22m: this was made up of dark greyish-brown sandy silt with a small proportion of sandstone pebbles, and it was interpreted as a secure impermeable layer sealing the bank top and protecting it from wear and tear by livestock and weather.

The cutting of a narrow sondage (500mm wide by 2.5m long) across the bank top revealed a further layer below (1102) composed of dark reddish-grey clayey silt (Context 1103) distinctly different in both colour and consistency from (1102). It was firm and well consolidated providing a firm sub-base for the upper layer; it had been laid directly on top of natural glacially-deposited till.

Outside the bank, seen in a very narrow strip only 150mm wide, was a subsoil layer on the outer part of the bank (1105): this consisted of very dark greyish-brown silt. It may have

been deliberately laid as a sub-base or may have developed over the years but this latter scenario is less likely as vegetation would surely have quickly masked the ground surface.

Topsoil (1101) was underlain on the steep west (inner) bank of the ditch by very dark olive-grey sandy clay (1104), partly bleached and clearly anaerobic.

On the gently sloping east side of the ditch (2.3m long within the trench), and below the topsoil, was a layer of sticky, glutinous, bleached grey-to-orange clay (1106) with up to 60 per cent highly degraded sandstone pebbles apparent within it. Presumably, when the ditch was being dug, this layer of firm clay was taken out of the ditch and spread on its eastern bank where the angle of slope would have proved less of a deterrent to livestock than the steep west bank.

In the base of the ditch was seen a very glutinous and sticky, bleached grey clay (1107). Because of the seriously-waterlogged conditions in the ditch it was not possible to determine the thickness of this layer (Fig. 12.21): as fast as water was bailed out, it seeped back in again from upslope. It had clearly been puddled by human agency and was exceedingly anaerobic.



Fig. 12.21 The glutinous mess (1107) within the ditch (David Johnson)

On the rim of the west bank, set into (1105) in the sondage, was a stone revetment (1108) 500mm wide, composed of large, rounded sandstone cobbles, presumably placed there to protect the bank top and to prevent surface material being washed or trampled into the ditch (Fig. 12.22).



Fig. 12.22 Trench 11, looking east through the ditch with stone revetment (1108) in the middle ground (David Johnson)

Context 1109 was the cut that had been made when the ditch and bank boundary was laid out by hand-digging material from the ditch and upcasting it on to the bank. It was asymmetrical in cross-section being much steeper in its inner (east) face than the outer (west) face with a convex top and concave base (Fig. 12.23). The actual inner-facing slope varied from ten degrees from the horizontal near the base to thirty degrees in the upper part.

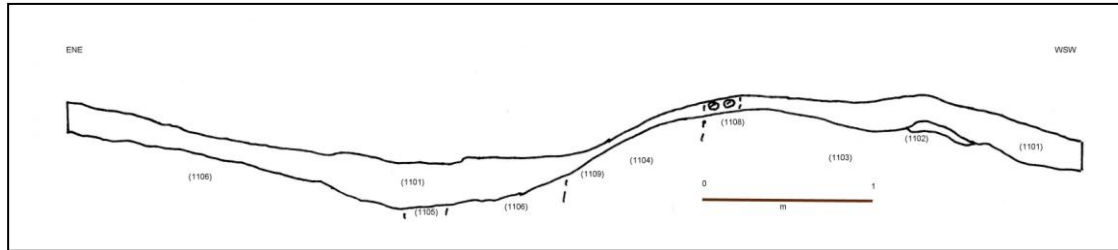


Fig. 12.23 Long-profile through Ditch and Bank feature 1d, with the steep bank centre right

Working on this trench was severely hampered by very wet weather and the state of the ground, especially within the ditch: Fig. 12.24 – a forlorn-looking spade in the spoilheap – can be seen as a suitable metaphor for the prevailing conditions.



Fig. 12.24 One forlorn-looking spade (David Johnson)

Trench 12

High Flat Barn (SD7801 7932), Thorns 7 in the Thorns Vernacular Building Survey, had the appearance prior to excavation of being possibly the oldest building on the Thorns estate, given the apparent thickness of the walls and the double plinth (see Chapter 10). Two trenches were demarcated to investigate the building's secrets (Fig. 12.25).



Fig. 12.25 High Flat Barn showing the location of Trench 12 (John Asher)

Trench 12 was laid out in the north-eastern corner of the structure, set against surviving sections of north-elevation and east-gable walls. It measured 3m in length (east-west along the building's alignment) and from 1.1 - 1.2m in width – the walls had not been built square. Four contexts were recognised, each one extending across the whole trench.

Context 1201 was the topsoil layer, 150mm thick, consisting of dark reddish-brown clayey silt with some scattered small siltstone pieces 7mm thick. It was rich in organic matter, despite the clay content, and had clearly developed by natural edaphic processes since the building was abandoned. On and within the topsoil were limestone blocks that had tumbled from the north elevation wall. Bottle and glass fragments were recovered from this layer as well as a sandstone/siltstone piece with a seemingly chamfered edge.

Beneath the topsoil was a thin layer of lime mortar (1202) interpreted as a base into which the building's floor had been laid, though none of the floor surface was seen in this trench – it had clearly been robbed out in the distant past. The lime mortar layer was generally 60mm thick and was seen at a depth below the current ground surface of 140mm.

Below this was a subsoil layer (1203) also composed of dark reddish-brown clayey silt, which had been deliberately laid as a substrate for the floor; its thickness varied from 80-100mm. No finds were recorded here.

The subsoil had been laid on top of what may be the natural material (1204) that was there prior to the building's construction. This was very different from the upper layers, being yellowish red clayey silt containing c. 5 per cent weathered sandstone fragments. Its depth was not determined.

Trench 13

This was laid out over what earthworks suggested might be the south-west corner of the building (Fig. 12.26). Initially a 2m-square test pit to locate any surviving corner stone, it was extended in two directions to pick up the west gable and south elevation wall lines, ending up overall as a trench 3.5m east-west by 3.1m north-south. Six contexts were identified.



Fig. 12.26 Trench 13, (bottom right) showing the south-west corner of the building (John Asher)

Context 1301 was the same topsoil as in Trench 12, here with thickness ranging from 130-260mm. Small finds logged in (1301) comprised a fragment of window glass, a 75mm- (3-

inch-) long hand-forged nail (pre 1750 in date), a fragment of nineteenth-century clay pipe stem, and two pot sherds – one from a white-glazed earthenware saucer and one from a kitchen ware vessel of black-glazed redware. Both could have been from the late seventeenth or the eighteenth century. Contained within the topsoil layer were limestone blocks interpreted either as wall tumble or demolition rubble, most likely the latter.

In the south-west corner of the original test pit, Context 1302 was a section of original floor surface 740mm by 460mm in extent and butted against the west gable wall line. It was composed of fine flagstone slabs only 25mm thick. Over most of the remainder of the original test pit was Context 1301, a layer of lime mortar 60mm thick exactly the same as that seen in (1202). It was clear that the floor slabs (1302) had been laid on this substrate layer to both hold them firmly in place and to form a level base for the slabs.

In a small section on the east side of the original test pit, Context 1304 was a layer of subsoil beneath the lime mortar, again the same as seen in (1203): it was exposed here as the lime mortar layer had been disturbed at some point in time.

Context 1305 was the west gable and south elevation wall lines of the building, seen to survive only as wall footings composed of large squared sandstone blocks with a particularly large slab at the corner and an even larger one set across the gable wall. The rest of the walls had clearly been demolished and removed rather than having been left to slowly collapse: there simply was not sufficient stone tumble to permit the latter scenario. The gable wall was 1.9m long within the trench and the south wall 2.1m; the former was 1.05m in width and the latter 850mm.



Fig. 12.27 Trench 13, with the west gable wall on the left, the south wall next to the North arrow, the threshold slabs lower right and the floor slabs upper right (John Asher)

Finally, set within the south wall was Context 1306, seen as large squared slabs: a large Helwith Bridge 'slate' (500 by 700mm in size) set into the inner side of the wall, butted against a smaller limestone slab and a large flagstone slab (340 by 440mm) set in the outer part of the wall. The inner one was seen to butt against the floor slab (1302). Together, these slabs were interpreted as part of the building's threshold (Figs. 12.27 and 12.28).

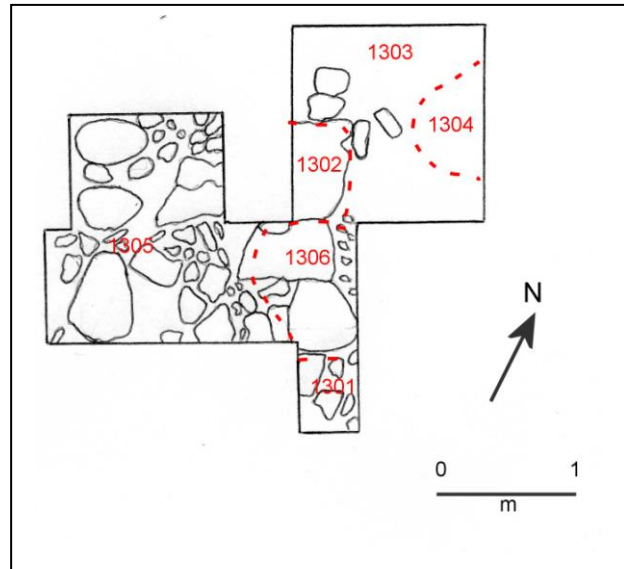


Fig. 12.28 Trench 13, final plan

4. Finds Report

From excavation work within the settlement a total of eighty-four small finds were given a dedicated small finds (sf) number, though some sf numbers referred to multiple items: individual sf numbers break down as follows:

ceramic sherds	100
glass	35
metal	63
wood	1 unidentified
window lead	1 short piece
clay tobacco pipe (CTP) stem fragment	2 19 th -century stem fragments
charcoal, coal, coke and other burnt material, lime mortar, lime plaster, coloured limewash	

Metal objects

All metal objects were of cast- or wrought-iron (Table 12.1)

Not unexpectedly, there were many (n = 23) iron items that defied identification, such as long thin pins and a fragment of a flat iron sheet. There were twenty-one hand-forged nails of a type that is very common on early-modern to late nineteenth-century sites. They are typified by a squared profile and a large flat head and they were turned out by local blacksmiths by the hundred with boys and apprentices set to the repetitive task of heating a long iron rod in the furnace and hammering it to shape before snipping it to the required length and hammering the thicker end flat to form the head ... and then starting all over again. Fig. 12.29 shows a hand-forged nail specially made for this writer by blacksmith Ian at Bradford Industrial Museum on 28 June 2017.



Fig. 12.29 A modern hand-forged nail (John Asher)

Table 12.1 Metal objects logged

Sf	Context	Quantity	Brief description
104	201	1	Window stay
105	201	1	Strap hinge
106	101	1	3 inch-long hand-forged nail
107	spoilheap	15	Thin pins, unidentified
108	spoilheap	15	Hand-forged nails
109	201	2	Fragment of iron sheeting
110	spoilheap	1	Long iron pin
114	spoilheap	1	Unidentified iron fragment
115	101	1	3 inch-long hand-forged nail
124	601	1	Iron clench nail
125	701	1	metal hook, unidentified
126	701	2	3 inch-long hand-forged nails
128	601	1	Strap hinge
129	701	1	L-shaped iron fixing, unidentified
137	701	1	Fragment of iron cauldron body
153	1003	1	Broken part of unidentified iron fixing
158	1001	1	Unidentified iron fixing
159	1001	1	Unidentified iron fixing
168	1001	1	Broken hand-forged nail
169	1001	1	Part of iron hook or clasp
176	1001	1	Iron hames from a pony harness
177	1004	1	Iron pin fixed vertically to hold shafts on a cart
178	1001	1	Threaded iron bolt
179	1001	1	Iron attachment for cart hook or chain
180	1001	1	Iron cart fixing to hold leather straps
181	1001	1	Cart attachment
182	1001	2	Swingles from a plough harness or chains
183	1001	1	Bracket to attach shaft to cart
197	1301	1	2½ inch-long hand-forged nail
206	1301	1	3 inch-long hand-forged nail

Such nails were used everywhere for doors, timberwork in houses and barns, hand-made furniture, and general on-farm carpentry.

Part of a blacksmith-made, wrought-iron, spiral-shaped window catch or stay (sf 104) was found in Trench 2, in the shippon end of one of the excavated buildings. It would have been fixed to a catchment window to hold it in the open position and the holes drilled along its length were slotted onto iron pegs on the other (missing) part of the stay. Stays of this type are known from the 1720s (pers. comm. Alison Armstrong).

Two wrought-iron spearhead strap hinges were logged, namely sf 105 also from Trench 2 and sf 128 from Trench 6 in the east side of the parlour of the three-bay house (Site 3). Sf 105 had its pointed end broken off and the whole hinge is heavily encrusted. Given its precise position, it is probable that the hinge was fixed to the door at the front of the shippon (in the threshold seen in Trench 3). Holes along the length of the hinge were for fixing it to the timber of the door using hand-forged nails and it was hung on iron pins fixed to the now-missing timber door frame. Sf 128 was most probably attached to the door that connected the housebody with the parlour. This type of door hinge was in use between 1604 and 1740 (pers. comm. Alison Armstrong).

Sf 137 was a small fragment of the body of an iron cauldron found in Trench 7, the housebody of the house Thorns 3. This was the room where food was cooked and cauldrons were almost universally used for slow cooking of stews, pottage and such like, with the cauldron suspended over the open fire from an iron hook called a reckoncrook. The fragment was found on the same side of the room as the hearth.

A range of items were logged from the floor of Trench 10, all of them pony and cart furniture. Sf 176 is one side of a set of hames which were placed in grooves on the upper side of the padded collar round the animal's neck and held in place by leather straps or short chains (Fig. 12.30). The eye at the lower end of the hames was the attachment for the traces and its purpose was to distribute the pull of the traces equally on the animal's shoulders.²⁷ The small size of this set of hames is evidence that the animal in question at Thorns was a pony rather than a horse.



Fig. 12.30 Diagram of a hames in position on the collar
© Bradford Industrial Museum

²⁷ Thanks are due to Louise Wightman of Bradford Industrial Museum who identified the various items described here and showed examples of many of them on actual horse harnesses.

Other connected items included sf 180, a fixing plate from the side of a small cart to which the straps were attached, and similar fixings forming part of pony and cart furniture (sf 177, 178, 179 and 181) (Fig. 12.31).



Fig. 12.31 Items of pony and cart furniture from Trench 10 (John Asher)

Sf 183 is a heavy-duty bracket of the type attached to the side of a cart for holding one of its shafts in place; while sf 182 is two swingles, part of a swingletree pivoted in the centre of the cross bar of a plough that held the traces in position but gave the horse freedom of movement at its shoulders (Fig. 12.32).



Fig. 12.32 Sf 182, part of a horse-drawn plough swingle (John Asher)

Ceramic objects

Barbara Blenkinship

A broad range of pottery sherds was logged from all three sites (Table 12.2).

The collection of sherds from Thorns is typical of those found in upland areas of Britain where ceramic finds are usually of a later date than those from lowland sites; this is particularly true for Cumberland and Westmorland where very few pottery production sites are known to pre date 1600 (McCarthy and Brooks, 1988).

This almost aceramic lifestyle persisted much longer in isolated subsistence farming areas where wooden plates were still in use as trenchers and bone was still freely available for drinking vessels and spoons well into the nineteenth century. The fact that neither of these materials survives well in the ground means that accurate dating of remote upland sites, based on ceramic evidence, is difficult.

A large proportion of the assemblage by weight consists of redware and stoneware storage vessels used for the storing and preservation of food and drink. Most of the items seem likely to have been made at the nearest pot-producing centre, Burton-in-Lonsdale, which is believed to have been established c. 1740 (White 1989), continuing till final closure c. 1945.



Fig. 12.33 Large redware sherd from the base and side of a pancheon or baking bowl. Unknown origin (John Asher)

Table 12.2 Ceramic objects logged

Sf	Context	Quantity	Description
101	107	1	3 lead-glazed earthenware body sherd; poss. a bread crock; prob. Burton-in-Lonsdale
117	701	2	Joining lead-glazed redware sherds from a storage vessel; prob. Burton-in-Lonsdale
118	701	1	Externally-glazed stoneware sherd, poss. from a small bottle
119	601	3	Sherds of black-glazed redware from one vessel; poss. a lading jug or flagon prob. Burton-in-Lonsdale
120	701	1	Black-glazed redware sherd from jug or flagon handle; prob. Burton-in-Lonsdale
121	601	1	Ditto; prob. Wrenthorpe, 17 th or 18 th century
127	701	1	Delftware sherd with off-white glaze and blue decoration, from a plate; pre-1800
130	spoilheap	1	Black-glazed red earthenware sherd; prob. Burton-in-Lonsdale
131	701	1	One large redware sherd from the base and side wall of a pancheon or baking bowl; crazed yellow glaze on interior; origin unknown. (Fig. 12.33)
132	601	2	One black-glazed redware sherd; one fine white earthenware sherd from a cup, hand painted in red and green, poss. Wemyss Ware post-1882 (Fig. 12.34)
133	701	5	Sherds, one with surviving yellow glaze
135	801	1	White earthenware sherd with pearlware glaze from a small plate or saucer, signs of blue decoration
138	801	1	Black-glazed redware rim sherd from a large storage vessel, poss. used as a fleshpot for storing meat pickled in brine; prob. Burton-in-Lonsdale. (Fig. 12.35)
139	701	1	Sherd of red earthenware, with crazed yellow lead glaze, from the base of a bowl (similar to <131>)
140	701	1	Small sherd of Staffordshire Mottled Ware, c. 1680-1780, poss. a porringer or tankard
141	803	1	Sherd of white earthenware with transfer-printed pattern from a plate
142	1001	1	Sherd of white salt-glazed stoneware with rouletted decoration; prob. Staffordshire c. 1720 (Fig. 12.36)
143	1001	1	Small sherd of white earthenware with blue transfer-printed design with a chinoiserie pattern, 1775-1840
147	1001	1	Sherd of white earthenware transfer printed on both sides in grey, with pearlware glaze, c. 1750-1840
148	1001	1	Sherd of white earthenware with crazed, pale-blue glaze on one side (the same as <151>)
150	1001	1	Delftware sherd, part of the rim and side wall of a small basin, with some surviving mid-blue glaze and pale blue glazing on the rim and underside, crazed, prob. pre-1800
151	1001	2	Sherds of white earthenware covered on exterior surface with a crazed pale-blue glaze; one sherd is from a rim and is contiguous with rim sherds from <149>
152	1001	1	Sherd with brown glaze on one side, prob. same as <118>
154	spoilheap	1	Rim sherd from a finely-made redware vessel with the ghost of slip trailing on the outer rim
155	1001	1	Earthenware sherd, glazed on one side and with pinkish fabric; poss. very old cf to the rest of the assemblage but too degraded to be certain
157	1001	1	A piece of reduction-fired clay
163	1001	1	Sherd of white earthenware with crazed pearlware design, undecorated; 1775-1840
165	1004	1	White earthenware with crazed pearlware glaze, prob. a cup; 1775-1840
170	1001	1	White earthenware holloware with a lightly-crazed glaze, hand painted in blue, c. 1800
171	1004	23	Sherds from a finely-made lead-glazed earthenware flagon decorated with 7 concentric sliptrailed lines around the shoulder; a forenoon bottle used by outdoor workers to contain small beer; Burton-in-Lonsdale, c. 1780-1820 (Figs. 12.37 and 12.38)
174	1004	1	Sherd from a large stoneware flagon, glazed on both surfaces, with a green glaze typical of Burton-in-Lonsdale c. 1830 (Fig. 12.39)
184	1001	1	White earthenware rim sherd from a slip-decorated tankard, mass-scale 'industrial slipware'; Staffordshire, 1875-1900 (Fig. 12.40)



Fig. 12.34 Part of a fine, white earthenware cup in the style of Wemyss Ware, post-1882 (John Asher)



Fig. 12.35 Part of a large black-glazed redware storage vessel, probably a fleshpot for storing meat pickled in brine (John Asher)



Fig. 12.36 Part of a white salt-glazed vessel with rouletted decoration, probably made in Staffordshire c. 1720 (John Asher)



Fig. 12.37 A finely-made lead-glazed earthenware flagon with sliptrailing, a 'forenoon' bottle used for holding an outdoor worker's small beer. Made in Burton-in-Lonsdale c. 1780-1820. Reconstructed by Karen Barker, Antiquities Conservation Service (Barbara Blenkinship)



Fig. 12.38 Another view of the forenoon bottle (Barbara Blenkinship). This item was generously donated by Mr J. C. White to The Folly Museum and Heritage Centre, Settle



Fig. 12.39 Part of a large stoneware flagon with a green glaze, made in Burton-in-Lonsdale from 1830 (John Asher)



Fig. 12.40 Part of white earthenware, slip-decorated tankard, mass produced in Staffordshire from c. 1875 – 1900 (John Asher)

Addendum – David Johnson

Further pot sherds were recovered during consolidation of the part-standing house and during the second excavation phase: altogether a further thirteen sf numbers were logged (Table 12.3).

Table 12.3 Pot sherds from Phase 2 excavations

Sf	Context	Quantity	Description
185	Trackway 6	1	White glazed with white fabric and an unusual black-patterned trail
186	Ditto	2	Yellow-glazed brownware
188	Ditto	5	Transfer-printed blue and white tableware
189	Ditto	1	Transfer-printed blue and white tableware with foliate pattern
190	Ditto	1	White-glazed earthenware
191	Ditto	1	Mottled brownware with glazed dark brown rim – Staffs ware?
192	Ditto	1	As 191
193	Ditto	4	As 191
194	Ditto	1	As 191
195	Ditto	1	Black-glazed redware, externally glazed
196	1301	2	Red fabric, internal dark brown glaze on rim, unglazed exterior
203	1301	29	White earthenware saucer fragments
204	1301	1	Black-glazed redware

Apart from sf 191-94, which probably dated to 1660-1780, all the other vessels are typical of rural kitchen pottery from the late eighteenth or the nineteenth century.

Glass items

Chris Howard-Davis, Oxford Archaeology North

A total of nineteen fragments of glass were examined from this project (Table 12.4). All are in fair condition, with slight abrasion, but widespread dulling and in one case flaky weathering. Most of the fragments have been identified as sheet glass, with only three deriving from vessels.

Table 12.4 Glass objects logged

Context and sf no.	Description	Date
203, sf 103	Dark olive green body fragment, tall, narrow cylindrical bottle. Vertical seam shows it to be mould-blown.	Late nineteenth – early twentieth century
601, sf 123	Three fragments flat sheet glass. Two pale greenish, mid-pane fragments. Cursive scratches on one fragment could be deliberate. Thickness: 1.5mm One pale bluish-green mid-pane fragment, unweathered. Thickness: 2mm	Post medieval and modern
1001, sf 144	Thin colourless sheet, seems to be a deliberately-cut lozenge, perhaps grozed on two sides. Its size suggests that it might have been intended as an inset. Length: 24mm; Width: 10mm; Thickness: 1mm	Eighteenth century or later?
1001, sf 146	Small fragment colourless-bluish ?sheet glass. Thickness: 1mm	Modern?
1001, sf 149	Chip dark olive green metal. Thickness: 4+mm	Nineteenth century or later
1001, sf 160	Two are pale greenish, mid-pane fragments Thickness: 1mm	Post medieval?
1001, sf 164	One pane-edge fragment. Colourless but slightly abraded. Differential weathering suggests it was set in a deep H-sectioned came. Thickness: 2mm	Modern
1001, sf 167	Small fragment colourless sheet. Thickness: 2mm	Modern
1004, sf 166	Small slightly bluish sheet fragment Thickness: 1.5mm	Nineteenth century or later?
1004, sf 175	Six fragments flat sheet glass: Three are pale greenish, two mid-pane and one retaining the pane-edge, showing it to be diamond cut, with differential weathering suggesting that it was set in came with a deep H-shaped section. Thickness: 1.5mm Two joining mid-pane fragments are of similar colour, with flaking weathering; no original edges survive. Thickness: 1.75mm One mid-pane colourless fragment is unweathered but slightly abraded. Thickness: 2mm	Post medieval and modern
unstratified, sf 136	Base of a small blown bottle in colourless-bluish metal. Kick retains pontil mark. Diam base: 44mm; Thickness: 1.5mm	Mid-late eighteenth century

Of the vessels identified, only sf 136, the base of a small pharmaceutical phial, found unstratified, is of any interest. It is a common form, dating largely to the second half of the eighteenth century (Hume 1969, 74), although earlier examples are known. Sf 149 is a featureless chip from a dark olive green wine bottle or similar, again a predominantly eighteenth-century form. Sf 103, although of similar colour and probably serving the same purpose, bears obvious mould seams, and is thus unlikely to pre-date the last quarter of the nineteenth century.

The remainder of the group is sheet glass, mainly window glass, most likely falling within a range from the eighteenth to the twentieth centuries. In most cases the pane edges have not survived, but on one or two differential weathering has suggested that they were relatively small panes, set within lead cames. One very small fragment, sf 144, stands out. Although ostensibly sheet glass, it appears to have been deliberately cut and grozed into a very small lozenge, no more than 24mm in maximum dimension. No obvious identification can be offered, but it was presumably intended for some decorative purpose, as an inlay.

Glossary

Came (or **kame**) – the thin lead strips that hold glass panes together

Cursive scratches – scratches that give the impression of having been deliberately made

Grozing – trimming the edges of glass

Kick – the base of a bottle when it has been pushed upwards into the bottle, like a modern wine bottle

Pontil mark – the scar left on the base of a vessel where the rod used for holding the glass was broken off.

5. Staffing

Alison Armstrong, John Asher, Margaret Barker, Ged Benn, Chris Bonsall, Pat Carroll, Phil Carroll, Carol Dougherty, Sally Edwards, Peter Gallagher, David Gibson, Sheila Gordon, Carol Howard, Lynda Hutchins, Gordon Jackson, Hannah Kingsbury, Mike Kingsbury, Frank Laver, Muriel Laver, Bob Moore, Geraldine Norman, Ray Noy, Ros Noy, Carol Ogden, John Owen, Martin Regan, Phil Robinson, Helen Sergeant, Margaret Shurlock, Tom Shurlock, Unity Stack, Ann Thake, Dianne Wall, Maurice White, Martyn Winrow, and members of the Dales YAC.

THE THORNS FIELDSCAPE



Fig. 13.1 Back Hools and Thorns Cow Close: high-quality monastic pastures when purchased by Furness Abbey in 1189-90 (David Johnson)

Contents

1. Introduction
2. The name 'Thorns'
3. A monastic fieldscape
4. Farming at Thorns after Dissolution
5. Historical field names
6. Thorns 1802-1910
7. Thorns in the modern era

1. Introduction

The evidence drawn together from the various surveying strands, excavation and archival research can be used to paint a picture of how Thorns developed over time – over the centuries of its recorded history it saw periods of growth and prosperity as well as periods of retrenchment and ultimate abandonment as a settled landscape. When it was originally established will never be known but there is a high level of probability that Furness Abbey purchased lands in Upper Ribblesdale (including Thorns) that were part of a pre-existing farmed landscape. They most certainly did not buy an unimproved desolate area of low-value, low-potential moorland; rather, as at Southerscales at Chapel-le-Dale,²⁸ they would have taken over ownership and management of an existing planned estate. Whether this had originated after the Norman Conquest in 1066 or during the early medieval era (in the Anglo-Saxon or Anglo-Scandinavian era), as said earlier, will never be known for certain but there is a degree of corroborative evidence. To recap, up to 1066 twenty manors in what are now Craven and Westmorland were held by Torfin; to have held so many manors he must have been a very important and powerful person, most likely a king's thane (a low-ranking nobleman). Among his manors were Horton (in Ribblesdale) and Selside and it is believed that the manor of Selside included all the lands now within Horton parish that formerly were known as the Higher Division, stretching from Selside west of the Ribble and Birkwith east of the river to Ribblehead, Thorns and Cam Houses (Spence 2016). Thus, Thorns was part of Torfin's holdings in Selside whether or not it was at that time already a settlement. Up to 1152 Craven and all lands to the north were effectively controlled by the Scottish crown and the death in that year of King David led to political instability in the North. In Spence's view Furness Abbey, along with other northern Cistercian monasteries, may have exploited this inherent weakness by buying up estates and manors such as Selside.

This chapter summarises what is known about Thorns as a farmed landscape using the various forms of evidence that have come to light through this project.

2. The Name 'Thorns'

Thorns was not called Thorns for no good reason, and the name is by no means a modern one: early references to Thorns confirm this with *Thorni* being an early form. The Lay Subsidy returns of 1297 recorded that *Henricus Spinin habuit ij vaccas; precium vacce iijjs vjd; unum averium duorum; precium ijs. Summa bonorum ixs* which translates as 'Henry Spinin has two cows; value of the cattle 7s 6d; one beast of two years; value 2s. Total of the goods 9s' (Brown 1894, 7). The name Spinin may be an Anglicised corruption or even an erroneous spelling and could derive from the Latin words *spinetum* meaning a thorn hedge or *spinus* meaning blackthorn.

There is strong evidence that Anglo-Saxon field boundaries consisted of a bank and ditch with a 'substantial timber pale or [by] a dead or living hedge (possibly of thorns as the hawthorn is the *hagaborn*' (the letter *þ* is pronounced 'th') (Hooke 2010, 155). Out of 109 pre-1066 Yorkshire charters, no less than thirty-six included 'thorn' in place-names compared to only eight with oak and five with ash (*ibid* 166), and for England as a whole prior to 1100 'thorn' is by far the most common arboreal place-name element (*ibid* 179).

²⁸ The HLF-funded *Stories in Stone* project also involved archaeological work at Southerscales (project H4).

One can thus envisage an Anglo-Saxon landscape with farms divided into fields by thorn-covered banks and associated ditches – there is no way of saying this is what our Thorns was like but we do have the place-name and the extensive network of ditches and banks (see Chapter 8) so there is circumstantial evidence. Was the pre-monastic estate perhaps renowned for its concentration of hawthorn and/or blackthorn bushes atop the banks? As said, the name ‘hawthorn’ derives from the Old English (Anglo-Saxon) word *haga* which simply meant a hedge so the hawthorn was renowned even then as a species suitable for hedging. Alternatively, the hawthorn is one of the earliest colonising tree species on abandoned cropland so there is the (vague) possibility that for whatever reason and at whatever time the estate had been allowed to revert towards a natural state or, more likely, an area already covered in thorn bushes was taken in and cleared for farming. It was also a species closely associated with open tree cover – wood pasture rather than closed woodland – and with open-field farming (Coates 2012, 220-21).

However, in Anglo-Saxon England thorn bushes also had religious connotations (and in pagan Britain, too) and to uproot or chop down a thorn bush was to inevitably bring upon oneself or one’s livestock ‘terrible perils’ (*ibid* 238).

3. A Monastic Fieldscape

Thus far, we can envisage a medieval landscape at Thorns of boundary ditches and banks topped with some form of live or dead hedge dating either from the monastic period or even earlier; however, as we saw in Chapter 8, to have laid out such a massive scale of works must have involved top-down centralised control and management which may not have been available before Furness Abbey bought the estate. Yet it was common – even ‘typical’ – to have had a ditch and bank network preceding dry-stone walls as field boundaries (Roberts and Wrathmell 2002, 163). The settlement of Thorns must always have been the focus of the estate otherwise alternative earthwork evidence would be apparent, and its position as a node of trackways (see Chapter 7) reinforces this. It is common for farmsteads to have been established with direct reference to the ‘layout of resources’ with radiating trackways designed to access those resources and it is the *trackways* that should be seen as constants in the landscape rather than the settlements (*ibid* 192).

As said earlier, the existing landowners, Richard de Moreville and his wife Alice, assigned a large part of their Selside and Birkwith estates to Furness Abbey at the latest in 1189-90 in return for payment of £200, a considerable sum in those days. The Birkwith part of this bargain extended all the way from Low Birkwith through Thorns, and beyond Gayle Beck to Cam. In 1200 a long-running ownership dispute was settled between Furness and Jervaulx Abbeys over rights of pasturage in Birkwith (Brownbill 1916, 334-35) – both abbeys having been granted land by the de Moreville family – and the outcome was that Furness retained sole ownership but had to recompense Jervaulx to the tune of £26 13s 4d and allow them some grazing rights. This issue obviously simmered long into the future as another similar dispute erupted in 1338 as a result of which Jervaulx retained its grazing rights as well as the right to retain a lodge and 10 acres (4ha) *ad Caldekelde super Campe* (‘at Cold Keld above Cam’) and pasture rights on 40 acres (16ha) between Cam and their lodge, which was probably High Birkwith, along with rights of ‘chiminage’ (rights of passage) between Birkwith and Cam. This would have taken them along what later became Cam Road over Ling Gill Bridge.

From these long-running disputes we can infer that the pasture lands in question – between Birkwith and Gayle Beck/Cam – were perceived to be of considerable economic value. If not, why would the two abbeys have fought so hard and so long to control them, and why would they have bought de Moreville's estates in the first place? Thus, the fieldscape then was very different from the one we see today: it was emphatically not low-quality, rush-infested, low-density grazing but productive pasture land. When Pope Celestine III (1191-98) issued a Bull of Privilege confirming Furness Abbey's *grangiam de Nubi et Mewid, grangiam et pasturam de Sellesete et Birkwith* ('grange of Newby and Mewith, grange and pasture of Selside and Birkwith') he was confirming properties with a substantial value (Atkinson 1886, 666-67).

In monastic terms a grange stood higher in the land management hierarchy than a lodge; for Furness property north and south of Ingleborough the grange was at Newby. This was, in modern speak, their regional corporate headquarters. Unfortunately, the word grange was not always used accurately even during monastic times. The term lodge is problematic as it could mean anything from a basic shed through a farmstead to a high-status house. Here, we can probably safely interpret the term to mean a farmstead of some substance and it is interesting to note that many former monastic lodges are still evident in the landscape as larger than average farmsteads: Lodge Hall and Nether Lodge are two obvious local examples. Taking the evidence from the inter-abbey disputes we can infer that High and Low Birkwith had the status of lodges for their respective abbeys rather than granges. Granges were sited far apart and the four sites named here are too close to each other, and to Newby, to have been true granges.

As far as Thorns is concerned there is no direct available evidence during its centuries of monastic ownership.²⁹ However, survey evidence from the Ditch and Bank and Wall Surveys enables a tentative and to a degree hypothetical picture of the Thorns fieldscape to be constructed (Fig. 13.2).

²⁹ It has recently come to the attention of this writer that a large archive of documents relating to all Furness Abbey's properties and estates is apparently held in the Vatican Library. A long-running programme of digitalisation is underway so, hopefully, in the not too distant future these will be available to the next generation of researchers on the Ingleborough area.

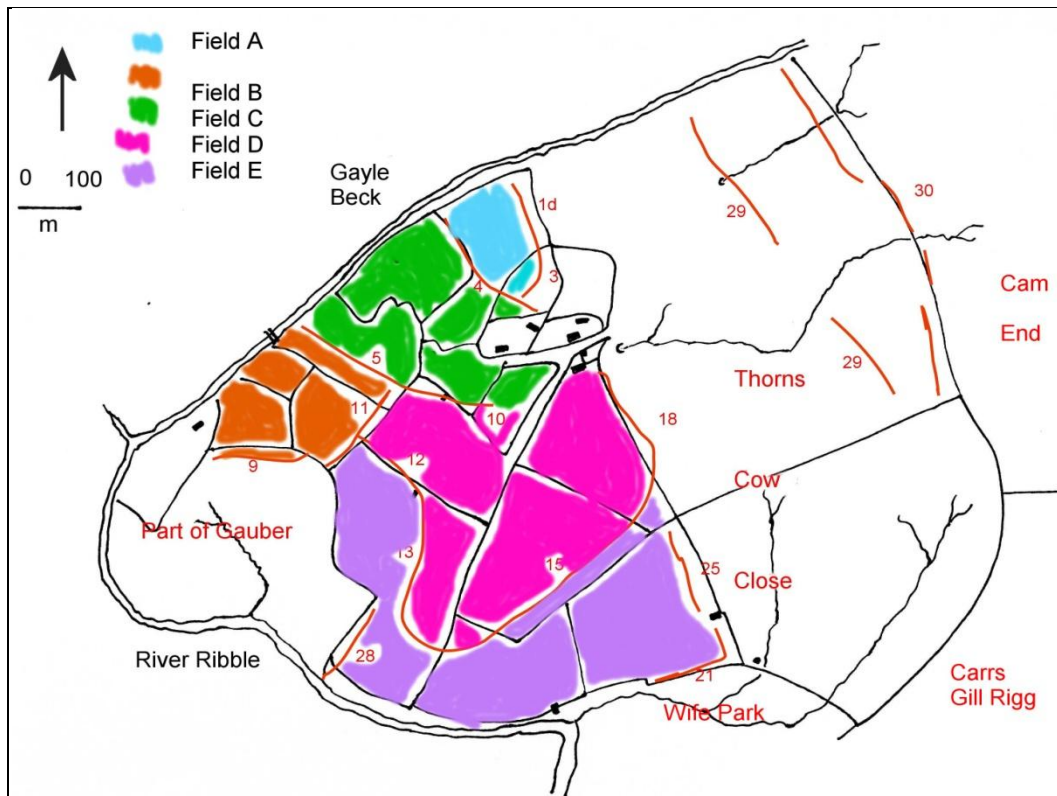


Fig. 13.2 Tentative reconstruction of monastic fields at Thorns

As discussed in Chapter 8, some of the ditch and bank features are more substantial than others; some are interpreted as external estate boundaries, others as major internal field boundaries and yet others as subsidiary field boundaries. On this basis it is possible to demarcate individual medieval/monastic fields, though it should be remembered that the meaning of the term 'field' then is different from its modern meaning: then, it referred to a discrete farmed area that was subdivided into smaller farmed parcels of ground; now, it refers to each of those smaller parcels. Holme and Nell Holme are now run together with the former Thorns and Ribblehead House tenements but historically they were part of Gauber tenement so they have been excluded from Figure 13.2.

We can tentatively identify five medieval 'fields':

Field A is now low-value rough grazing dominated by coarse grasses and rushes, and it was sub-divided into smaller parcels by Ditch and Bank nos. 1a-c and 2, and externally bounded by nos. 1d, 3 and 4. It sits on an acidic drumlin.

Field B is bounded by Ditch and Bank nos. 5, 9 and 11 and is sub-divided by nos. 6, 7 and 8. It sits on the north-facing slopes of a drumlin and runs down to Gayle Beck. The upper section now has the same species mix as Field A and the lower the same as Field C. It is of interest to note that LiDAR data seem to show the below-ground signature of medieval ridge and furrow parallel to and north of no. 11.

Field C is now higher-quality limestone grassland lying between Ditch and Bank nos. 4, 5 and 10 and it was not sub-divided into smaller parcels in the monastic era. This lies in the sheltered basin that contains the settlement of Thorns.

Field D is now broken up by later field walls, some of which are still stock-proof and it covers what are now very variable vegetation communities and soil potential. It is externally demarcated by Ditch and Bank nos. 10, 11, 12, 13, 15 and 18, and internally sub-divided by nos. 16 and 17. As a unit Field D does still have a degree of cohesion with its slopes facing either north or south into a narrow linear basin along which Nan Bottom Lane ran.

Field E is generally south to south-east facing land, now of generally low grazing potential, bounded in the past by Ditch and Bank nos. 11, 13, 15, 21, 25 and 28, and the boundary with Gauber lands. It is internally sub-divided in the south-east corner by nos. 19, 20 and 21.

Thorns Cow Close, bounded by nos. 1d, 3, 18, 25 and 30, until 1802 extended from Gayle Beck in the north to Carrs Gill Rigg and Wife Park in the south as one common stinted pasture. Now it is bounded by dry-stone walls but the earlier ditch and bank landscape is very clear on the ground with no. 30 being particularly impressive in cross-sectional form. It is possible that nos. 1d, 3, 18 and 25 formed an earlier eastern boundary to the Thorns estate and that Cow Close was taken in at a later date as the settlement became larger and more economically prosperous, to separate it from the open fell of Cam End. The presence of no. 29, as we saw in Chapter 8, is something of a puzzle: it is possible that no. 29 was the original boundary between the Cow Close and Cam End and that the former was later extended eastwards and re-bounded by no. 30.

Two other field survey methods employed during the project also shed light on the earlier fieldscape, though whether or not this extends as far back as the monastic period is arguable. Firstly, thorough botanical surveys undertaken by Chloë Lumsdon of Natural England on known former hay meadows (Appendix 18.1) and by two experienced volunteers, Margaret Barker and Sally Edwards elsewhere (see Appendix 18.2), highlight current species composition and, in the case of Chloë's survey, correlates this with the possibility that the selected fields were once traditional hay meadows (Table 13.1)

Table 13.1 Probable former hay meadows and current pH values

Field Code	Defra field no.	Modern field name	pH	Current (informal) status
A		Capnut	6.25	Rough pasture
B	9354	Gillheads Meadow	6.5	Limestone grassland
C	2254	No name	6 - 6.5	Rough pasture
D		High Malley	6.5	Rough pasture
E		Low Malley	6.75	Limestone grassland
F	0237	Lime Kiln Meadow	6.75	Limestone grassland
G		Little Meadow	6.75	Limestone grassland
H		Flash	7	Limestone grassland
I	7731	Flash Back	6.75	Mixed rough and limestone grassland
J	7010	Holme	6.5 - 7.5	Riverine grassland
K	7010	Nell Holme	6.75 - 7	Riverine grassland
L	0132	Low Flat	6.5	Rough pasture
M	0132	Pry	6.75 - 7.15	Rough pasture
N	2226	Jammy	7	Grassland 'going back'
O	1403	Top Little Pasture	6.75	Grassland 'going back'
P	3202	Back Hools Meadow	6.75	Grassland 'going back'
Q	1403	Bottom Little Pasture	6.75 - 7	Grassland 'going back'

Those highlighted in yellow may have been medieval hay meadows

There is very little variation in pH readings and this reflects the fact that soils at Thorns are not actively acidifying which, in turn, reflects past agricultural practices, specifically treating soil with lime to reduce acidity and with other inputs as well as under-draining. In general terms, a pH of 6 is ideal for the growing of nutritious grass.³⁰ Thus, no parcel at Thorns is below par in this respect.

In terms of indicator plant species, four of the surveyed areas having one or two fall within Area C on Figure 13.2, including Gillheads with ten indicator species, and one falls within Area D (Pry). Comparing these data with Table 13.1 – postulated medieval hay meadows – seven current fields may well have been hay meadows in the monastic era.

A further possibility requires some attention. Examination of LiDAR imagery³¹ suggests that corrugations apparent beneath the current land surface *could* be the remains of ridge and furrow cultivation. The signal is especially clear in the upper (eastern) part of Field B (now called Flash and Flash Back) with the corrugations parallel to Bank and Ditch no. 11: if these were cropland, they are probably of medieval/monastic origin. A second area is apparent just south of the east-west dividing wall (Wall no. 33) across what was Thorns Cow Close, just west of centre along the south side of that wall: if they were plough ridges they are more likely to date from the Napoleonic era, in the early nineteenth century, when French blockades led to a 'dig for survival' policy across the nation.

³⁰ See Natural England Technical Information Note TIN045 on *The use of lime on semi-natural grassland in agri-environment schemes*. I am grateful to Colin Newlands of the Ingleborough NNR for drawing this to my attention. For pH values see also www.landis.org.

³¹ LiDAR stands for Light Detection and Ranging and is a technique relatively new to archaeology by which aircraft-based instrumentation is able to log, with extreme accuracy, features that are very often not visible on the ground or even from aerial photography or satellite imagery. In a sense, it has revolutionised landscape interpretation.

4. Farming at Thorns after Dissolution

There is no direct evidence of what kind of farming was undertaken at Thorns during the years of its ownership by Furness Abbey (c. 1189-1537) though there are indirect clues. The Abbey's estates north and east of Ingleborough were sub-divided for management purposes into four units – using modern names, Southerscales, Winterscales, Selside and, later on, Birkwith. In Medieval Latin each of these was termed *vaccaria* which translates as vaccary, which was a large-scale cattle estate, more of what later might have been called a ranch than just a farm. This would suggest that cattle held a higher place in monastic estate management than sheep. If sheep had been the main economic focus, the term *bercaria* (bercary) would surely have been used but only one place in the whole area was ever referred to in monastic documents as a bercary, namely Wethercote at Chapel-le-Dale. A wether is a castrated male sheep and cote is an Old English word for sheephouse or sheep sheds or sheep farmstead. Having said this, though, it need not necessarily follow that a vaccary *only* had cattle; they may well have had sheep as a subsidiary and/or later element of the estate. The first (accessible) hard facts about farming at Thorns come shortly before the dissolution of the Abbey by Henry VIII's agents in 1537.³²

A full rental of the Abbey's *Lonysdall* Fells estates all around Ingleborough was drawn up by the Abbey in 1535 (Alcock Beck 1844, 325-34). The total rental value of the entire estate came to £310 11s 5d; that for Upper Ribblesdale and Chapel-le-Dale £76 9s ½d: fourteen discrete properties, or farmsteads, made up this latter total (Table 13.2). This compares with a net income for the entire Abbey estate of £646 19s 10d.

Table 13.2 Valuations of Furness Abbey properties in 1535

Property – monastic name	Property – modern name	Value
Selsyde	Selside	£13 2s 4d
Sowthe howse	South House	£8 2s 8d
Sowerskaylles	Southerscales	£13 6s 8d
Brunterskarre	Bruntskar	£3 6s 8d
Wynterskalles	Winterscales	£8
Raneskalles	No longer extant	40s 8d
Cham Howses	Cam Houses	£3 3s 4d
Lyngyll et byrkwith	Ling Gill and Low Birkwith	£6 19s
Neytherloge	Nether Lodge	£3 18s 8d
Thorne	Thorns	50s 4½d
Derstonys et Colte parke	Gearstones and Colt Park	£5 9s 2d
Yngman loge	Ingman Lodge/Lodge Hall	£6 8s 6d
Summa totalis	Total	£76 9s ½d

Thus, Furness lands around the north and east of Ingleborough accounted for approximately double the annual rental income from its properties south of the hill, centred on Newby (only £34 9s ½d). Within Upper Ribblesdale, Selside clearly dominated the picture, as would be expected by the fact that it is now a hamlet which until very recent times contained several discrete farming units. Equally clear is that *Raneskalles*, later to be called Raisegale, and Thorns were of much less value than all the other tenements. One only has to look at the quality of the land on the various holdings to understand why: those units with a higher

³² The Abbey was surrendered to the Crown on 9 April 1537.

annual rental had more valley land based on limestone grassland whereas those with the lowest had proportionately more acidic rough grassland on glacial drumlins.

Other Abbey rentals, for the regnal years 1536-37 and 1537-38, provided more than cash values for annual rents by listing the number of tenants, their names and the size of their holdings (Brownbill 1919, 646-51). They also appeared in The Ministers' Accounts for the Duchy of Lancaster (No. 2506, Bundle 159) for 1538-39 (Table 13.3). Here, tenements were listed in a different order, with different spellings, and in a different monetary format.

Table 13.3 Upper Ribblesdale monastic tenements 1536-39

Tenement	No. of tenants	Annual rent
Raysegale	4	40s 8d
Camhowse	4	63s 4d
Lyndgyll	2	19s
Byrkewith	2	£6
Netherlogge	4	78s 8d
Thornes	6	50s 4d
Derestones	1	109s 2d
Yngman Logge	6	£6 8s 6d
Selsyde	11	£13 3s 4d
Sowthouse	4	£8 2s 8d
Total	44	£51 15s 8d

Note: The Upper Ribblesdale total is exactly the same as for the earlier rental

The omission of Colt Park from the later rental cannot be explained. Taking the number of tenements listed, it is important to stress that the total given for each property does not mean they were all clustered at what are now called, for example, Lodge Hall or South House. In medieval times place-names did not necessarily apply to single settlement nucleations but to an area subservient to the main nucleation. The six Lodge Hall tenements would have included Ashes and Gauber; the four at South House, Borrins and Gill Garth. Similarly, Nether Lodge could have incorporated the now-disappeared tenements of Syke and Dry Lade.

The tenants at Thorns are itemised in Table 13.4.

Table 13.4 Monastic tenants at Thorns 1536-39

	Head of household	Size of tenement	An. Rent
Thornes	Bryan Wedderhed	1 tenement & 9 acres meadow	9s 1½d
	Widow of William Wederhed	1 tenement & 10 acres meadow	9s 2d
	John Hewson	1 tenement & 14 acres meadow	11s 5½d
	James Escombe	1 tenement & 9 acres meadow	9s 2d
	Thomas Benthame	1 tenement & 5 acres meadow	4s 7d
	John Benthame	1 tenement & 9 acres meadow	6s 10½d

From Table 13.4 we can see that Thorns as a whole comprised 56 acres (22.6ha) of meadow, that is land on which hay was cut for feeding (mainly) cattle in winter. The stated

figures exclude pasture land that was held in common by all the tenants. There was clearly a hierarchy of tenements, and thus tenants, at Thorns as elsewhere, with John Hewson having by far the largest holding, paying the largest annual rent, and Thomas Benthame at the opposite end of the economic (and social?) spectrum here. Unfortunately, it is not possible to tie these tenements in with the houses on the ground at Thorns now. From excavation evidence we know that the settlement at Thorns itself contained multiple houses, but the hard archaeological evidence does not point to six. Four have been located, and High Flat Barn may have been a fifth; it is also likely that Hipping House/Wife Park was counted as part of Thorns in monastic accounts thereby making six.

Despite the dissolution of Furness Abbey and the transfer of ownership of its lands first to the Crown and then to royal favourites, life and work at Thorns would have gone on much as before, the main change being that rather than paying rent to the Abbey the tenants now paid it to the Newby manor court. The next reference to Thorns comes in an entry in the Lay Subsidy records of 1547 which was a nationwide assessment of land values and goods held by all individuals worth more than £5 per year.³³ For Horton twelve individuals were assessed and they shared nine family names, some occurring right through the centuries across the High Division. John Bentham appears in the 1536-39 Thorns entries and the 1547 assessment as does the name Weatherhead (with different spellings). After 1547 Thorns appears in the Newby manor court rolls for 1592 when there were five tenements sharing four family names seen in earlier times.³⁴

Across the upland North as a whole the sixteenth century witnessed a change in emphasis from a late-monastic focus on sheep to an increase in cattle numbers and therefore an increase in the amount of land put down to pasture rather than cropland. No less a personage than Karl Marx noted that:

'The agricultural revolution [in England] continued almost the whole of the 16th century ... enriching him [the 'peasant' farmer] just as speedily as it impoverished the mass of the agricultural people. The usurpation of the common lands allowed him to augment greatly his stock of cattle, almost without cost, whilst it yielded him a richer supply of manure for the tillage of the soil.' (Marx 1867, Chap. 29)

There is ample archival evidence of increased enclosure of common land in, for example, Giggleswick, Austwick and Clapham during the post-monastic era and there is no reason to doubt that the same processes occurred across Horton and Ingleton townships. There is also ground evidence of dry-stone walls being built at Thorns in the sixteenth century specifically designed to contain cattle rather than sheep. As discussed in Chapter 9, many of the now-decayed walls between Gayle Beck and Thorns itself are – and always were – lower than others. One wall, at least, has a surviving cattle creep. These walls are high enough to deter cattle but in no way would have contained sheep in any given pasture, even allowing for the fact that sheep at that time were smaller than modern breeds.

5. Historical Field Names

In 1683 the manor of Newby came into the hands of the Duke of Buckingham and, as was the legal practice, a Court of Survey was held across the whole manor, and this found that at

³³ The National Archives E179/208/209.

³⁴ WYAS, Wakefield. WYL 524/142.

Thorns there were three 'messuages' and two 'little messuages' with five family names represented as holders of tenements and two others holding land but not living there.³⁵ At this time the will of Thomas Baines of Gearstones records the bequest of two parcels of ground at Thorns: they were named as Bottins and Newclose but they do not relate to any later field names so cannot be identified on the ground.³⁶

An Abstract of Title from 1742 for one of the tenements at Thorns, by which time there were only two main tenements, named the parcels of ground included with the property.³⁷ They were named as Great Nookdale 1 acre, Calf Close 1½ acres, Little Nookdale ½ acre, and Farr Field 2½ acres, making 5½ acres (2.2ha) in all, not exactly a large holding. Again, it is not possible to definitely identify these fields on the ground though it may be that Calf Close is now called High Malley (1.83 acres), Little Nookdale's area roughly equates to Hogg House Meadow containing the ruined building Thorns 2 (0.39 acres), and Farr Field could have been what is now Lime Kiln Meadow (2.57 acres) or Little Meadow (2.67 acres).

When the other main tenement changed hands in 1824 the legal document named the fields that went with that holding,³⁸ namely Little Meadow 2 acres and Great Meadow 39 acres. This Little Meadow does not equate to the current Little Meadow (2.67 acres) and no single field is anywhere near the size of Great Meadow. If the four fields south of the settlement are compounded the total size now is 37.34 acres; if the six fields between Gayle Beck and the settlement, but excluding High Malley and Lime Kiln Meadow, are compounded the total would be 36.87 acres. It is not possible to get any closer than this.

Later estate records do not mention Thorns at all and neither does a Survey of Farms undertaken in the 1880s: presumably by then Thorns was not highly regarded as a source of rental income.³⁹

6. Thorns 1802-1910

The new century opened with a major reorganisation of the shared stinted pasture of Thorns Cow Close between the 'ancient enclosures' of Thorns itself and the common grazing of Cam End: this was by a legally-binding agreement in 1802.⁴⁰ The survey conducted for the legal proceedings determined that the Cow Close as a whole contained 169 acres (68.39ha) and that two parties – Robert Elam of Gearstones and James Lister of Thorns – had hitherto shared the grazing. Elam, who earlier that year had purchased Gearstones from Lister, had the right to nineteen beastgaits (ie the right to graze that number of cattle) whereas Lister was entitled to thirteen. The problem with stinted pastures such as Cow Close was that unless they formally agreed to do so, neither party would feel inclined to invest in improving the quality of the land if the other party was going to benefit without incurring either costs or labour. Thus, Elam proposed that Thorns Cow Close be physically divided giving him the northern section and Lister the southern.

³⁵ WYAS, Morley. WYL 524/143. 'Manner de Newby ad membris in Comit Ebor 1683. Court of Survey'. The Court of Survey of the Right Noble George Duke of Buckingham Lord of the said Manor ... held at Newby 29 October 1683. A messuage is defined as 'an area of land taken up by a house and its associated buildings and land' (Corédon and Williams 2016, 191).

³⁶ Lancashire Record Office, WRW/L. Thomas Baines of Gearstones 1684.

³⁷ WYAS, Morley. WYL 524/80. Abstract of Title 4 February 1742, John Battersby to Leonard Battersby.

³⁸ WYAS, Morley. WYL 524/324. Agreement of Purchase 22 February 1824. James Lister to John Hartley, agent to Oliver Farrer.

³⁹ NYCRO. ZTW .III.3, ZTW III.2 and ZTW.III.4/13 respectively.

⁴⁰ WYAS, Morley. WYL 524/324. Agreement 2 November 1802.

As a result a new dry-stone wall was erected to act as a physical barrier, with Elam getting 115 acres (46.53ha) and Lister 53 acres (21.44ha) which made for an unequal distribution as Elam ended up with 15 acres more than his due entitlement. He was bound by the agreement to 'make and maintain' the wall on the east side of his part of Cow Close adjoining Cam End along with 60 roods (c. 305m) of the dividing new wall between his and Lister's allocation and a further length bounding a common watering place that seems never to have been put into effect. Lister was to erect a new wall dividing his allocation from Cam End and Nether Lodge Carrs at the southern end and the rest of the common dividing wall. All the new walls had to be completed by 1 July 1803.

To what extent either Elam or Lister carried out any improvements to their allocations is debateable. The now-ruined lime kiln at the southern end of Lister's allotment may have been brought back into use to reduce acidity levels in the soil thereby improving the quality of the pasture, and until relatively recently the pasture here was in a much better state than it is now (Fig. 13.3). Much of Elam's allotment was and still is very wet, even boggy, and there is little evidence on the ground of any systematic improvement after 1803.



Fig. 13.3 Ruinous lime kiln at the southern end of Lister's allotment (David Johnson)

The decade from 1815 would certainly have put paid to any major plans to invest in this or any other land. The end of the Napoleonic wars in 1815 brought about a collapse in farm-gate prices (though less so for animal products than for grain) and the catastrophic eruption of Mount Tambora (Indonesia) in 1815 led to 1816 being widely described as the 'year without summer' and livestock losses through the following winter were severe. The weather was dreadful all year, harvests failed and many tenants felt compelled to give up their tenancies as they could not afford to pay their rent (Veale and Endfield 2016). Conditions remained unfavourable for the rest of that decade and the nation fell into a state of depression that endured into the mid 1830s with little remission during that twenty-year period (Johnson 2010, 102-04).

Despite this the Farrers, lords of the manor and owners of part of Thorns, did invest in their properties all round Ingleborough and detailed accounts have survived for one year, 1833, giving an insight into what they deemed important to boost the value of their estate (Table 13.5).⁴¹

⁴¹ NYCRO. ZTW III. 3/7. Accounts c.1806-1947.

Table 13.5 Agricultural improvements at Thorns, 1833

Date	Name of worker	Payment	Detail of work done
29 May	Robert Fothergill	£10 2 0	For lime; for draining and fencing
28 September	William Thistlewood	17 6	For repairing lime kiln
	William Thistlewood	£ 4 7 6	For burning 1608 loads of lime over 35 days
27 September	Robert Fothergill	£46 18 0	For coal for lime kiln and 'burning' the kiln (at 7d per load) and for fencing
	Unnamed man	15 0	Assisting in kiln repairs

Cash-book entries are inevitably terse and to the point as there was no need for the ledger keeper to write more than was the absolute minimum to make sense to whoever checked the accounts at each year end. Fencing in those days meant dry-stone walling but, frustratingly, the entries do not distinguish between new walling and wall repairs. Similarly, they do not state what use the lime was put to but a quantity of this size – 1608 (cart) loads – cannot have been destined just for new buildings or building maintenance: most of it would have been spread on the land to 'sweeten' the pastures boosting tenant incomes and in turn giving the land agent the excuse to raise annual rents. The lime kiln was the one alongside Trackway no. 1 to the west of the settlement. Presumably, the kiln had been out of use for quite some time and was brought back into use in 1832-33 to facilitate the drive for improvement.

A series of estate ledgers provide further details of improvement works across the whole Farrer estate including at Thorns.⁴² Robert Fothergill was reimbursed for 'making stone fence for Thorns farm' but the wall in question is not identified, but why would it have been? His total payment (on 31 December 1835) totalled £48 13s 8½d which equates to a considerable length though the payment per rood is not stated though, on 29 November 1837, he was paid for 29 roods at 8s per rood (£11 12s 0d in all) so on this basis in 1835 he must have built about 120 roods – or 453m, an impressive length by any standards.

On 26 April 1841 Robert Staveley was paid £3 12s for 'drains on Thorns Beck 36 days', translating to a daily rate of 1s per day. Thorns Beck was presumably Gayle Beck and the drains at that time might have been the new type of machine-made ceramic sub-surface tile drains: the ledger makes no mention of the capital cost of tile drains so it is equally possible that he had been digging French drains – shallow open cuts filled with small stone. Examination on the ground in winter has failed to identify any such drains feeding into the beck. On 28 November 1846, however, Fothergill received £5 for '100 Roods stone drain' somewhere at Thorns which would suggest that both the 1841 and 1846 work was digging French drains. On 21 November 1852 Fothergill was paid at the same rate of 1s for '260 roods stone drain', so the Farrers were behind the times as by then tile drains were the norm.

Apart from drainage improvements, there was considerable work burning lime at Thorns for agricultural and building improvements: Table 13.6 summarises work related to lime burning.

⁴² NYCRO, ZTW (Addit), Book A1 (1833-38) to Book A9 (1901-09). Books A1 to A4 (1859-70) are relevant to works at Thorns. Beyond 1860 it is not possible to isolate expenditure at Thorns from other farms on the Farrer's Ingleborough Estate.

Table 13.6 Lime burning accounts for work at Thorns

Date	Name of worker	Payment	Detail of work done
31 December 1836	Robert Fothergill	£8 5 0	'burning and carting 165 Loads of lime'
4 November 1837	James Preston	£4 1 0	'for lime, used at Thorns'
2 August 1845	Robert Fothergill	6 6	'lime for repairs'
28 November 1846	Robert Fothergill	£16 7 0	'654 loads of lime on Thorns at 6d'
30 April 1852	Robert Fothergill	£21 6 8	'640 loads of lime burned and spread'
27 December 1853	Robert Fothergill	£51 2 0	'for lime and draining'
28 October 1860	James Fothergill	£15 19 9	'for Lime for Thorns Barn'

It is clear from these entries that some of the lime produced was destined for building work (1845 and 1860), and some for sweetening pastures (1846 and 1852), but the remaining entries are vague and cannot be attributed either way. After 1864 'Limeing' was no longer entered separately in the ledgers as the all-encompassing term 'Improvements' had come into use. The kiln was fed with coal: the accounts noted payment for coal purchased from Ingleton colliery (7 December 1835) and from Gargrave, presumably brought there on the Leeds-Liverpool Canal, in 1837.

Other ledger entries do point beyond doubt to building work and some can be attributed to particular buildings (Table 13.7).

Table 13.7 Building works at Thorns, 1836-60

Date	Name of worker	Payment	Detail of work done
23 Nov 1836	John Wilson	£27 11 6	'building walls, removing old barn, digging foundations, getting corner stone lintels'
Ditto	T. Sturgeon, Howson and Carters time	£13 0 5	'for Carpenters work'
Ditto	-	-	'Timber used' for ditto
29 Dec 1836	-	£2 7 7	'repairs Thorns Farms'
31 Dec 1836	Robert Wray	£3 6 6½	'Nails etc for Thorns Barn'
Ditto	-	£11 4 0	'getting stones, sand – 57 days'
21 October 1837	John Metcalfe and Gifford	£19 12 3	'Slates for Thorns'
31 Dec 1837	-	£4 4 0	'taking off and reslating Thorns House'
Ditto	-	£5 5 6	'Slating Barn'
Ditto	-	£4 10 6	'raising Walls, New Chimney etc to House at Thorns'
Ditto	-	£7 8 9	'rebuilding Porch, Slating and Plastering the same repairs to House'
15 July 1860	Henry Slinger	£1 2 5	'preparing Slate for Thorns Barn'
31 July 1860	Lawrence Hodgson	£39 8 4	'building Thorns Barn'
Ditto	Garnet	17 0	'Thorns Barn'
8 October 1860	Henry Slinger	£6 2 9	'slating at Thorns'
11 October 1860	Henry Slinger	£5 15 9	'slating Thorns Barn'
10 January 1861	James Fothergill	£5 15 0	'Thorns – wall round new barn' and 'fold drains to trough'

These data are invaluable, not least in interpreting the origin of the bank barn (Thorns no. 10) and Back Hools Barn (Thorns no. 8). Graffiti on a timber in the west shippon of the bank barn – ‘RH 1837’ (see Figure 10.41) – was assumed to relate in some way to work either in or on building the barn. Was the unidentified RH a farm worker who in an idle moment put his mark there or was he one of the carpenters who built the barn? This would have remained pure and unanswerable speculation were it not for the data in this set of accounts: the entries for 1836 and 1837 relate directly to the building of the bank barn, so RH was almost certainly involved in this work and he was probably the Howson paid on 23 November 1836. The entry ‘removing old barn’ confirms that the bank barn was built on the site of an earlier barn that was demolished at this time just as the entry ‘digging foundations’ shows that the earlier barn had a smaller footprint than the bank barn. Building the new barn took the best part of two years though the payment entered in October 1837 for slating does not mean the work had just been completed: it was common for estates to settle invoices at either the half-year or year end. Other entries in the ledgers in the 1830s, including 1837, relate to the purchase of American timber: whether this was imported through Lancaster or from Liverpool via the Leeds and Liverpool Canal was not stated. There are no entries at this time for Baltic timber, though account entries for 13 October 1855 do show the Estate buying Baltic timber (£23 0s 9d) and ‘timber at Lancaster Docks £3 14s’ though this could have been either Baltic or American timber. The accounts make mention of building a barn *and shippon* at Thorns so this probably refers to the bank barn and the now-collapsed long shippon that was added against the north wall of the barn. There is no specific mention of the stable that was a later addition to the barn’s east gable. To build the barn, as far as these accounts tell, cost a minimum of £77 2s 3½d but they do not include the cost of lime mortar, plaster and limewash and there may well have been costs hidden under different headings.

In 1860 further expenditure was incurred in building another barn at Thorns and the accounts enable this to be tentatively identified as Back Hools Barn (Thorns 8). The evidence for this is the entry for 10 January 1861 – payment for work done in the previous half-year – paying for ‘wall round new barn’ and ‘fold drains to trough’. The wall (Wall no. 39) became ruinous but it enclosed the fold yard around the west and south sides of the barn. The slate trough is still extant (see Figure 10.29) as are the drains. The only other barn on the Thorns estate with a fold yard wall and a trough is the bank barn but we know that was rebuilt in 1836-37. Back Hools Barn cost £59 1s 3d to construct, as far as the accounts tell though, again, other items of expenditure were not listed. There is no mention in the ledger of an older barn being taken down yet the OS map of 1847-48 marks an east-west-aligned barn on the west side of Wall no. 24, so there clearly was one here before the 1860 rebuild.

The accounting year 1836-37 had also witnessed repairs to one of the houses within the settlement of Thorns, at a cost of at least £16 3s 3d. The overall *Thorns through Time* project has identified three definite houses within the settlement and a possible fourth but two of them can be ruled out here on archaeological grounds: the evidence in the accounts does not match what exists on or under the ground surface. Thorns 2 and 13 are the ones that can be discounted; Thorns 1 and 3 are the likely candidates. The ledger entries show that the house walls were raised in height, a chimney was rebuilt as an integral part of this modification, it was re-roofed in slate, and the porch was rebuilt. It is also probable that the rear dairy outshut was added at the same time.

Various facts are germane here. Firstly, neither Thorns 2 nor 13 has any evidence of there having been a porch so this alone rules them out. Both Thorns 2 and 3 did have a porch according to ground evidence. Conclusion? It **could** refer to either Thorns 2 or 3.

Secondly, excavation evidence for Thorns 3 revealed many broken thackstones lying among the rubble but no slates as such, assuming by 'slates' the ledger meant the thin grey or green slates that were in more or less universal use for roofing by that time, and it is unlikely that it would have been re-roofed then with the heavy sandstone flags used in the late seventeenth and early eighteenth centuries. Stabilisation/consolidation work on Thorns 1, however, revealed more true slates than flags. This would point to Thorns 1 as the house being reworked in 1836-37. Conclusion? It was **probably** Thorns 1.

Thirdly, again from excavation evidence we know that the fireplace/hearth in Thorns 3 (Trench 8) was modified at some point in the building's occupied life though this would not necessarily have required the chimney to be rebuilt. On the other hand, there is also anecdotal evidence that the original fireplace – and thus chimney – in the housebody of Thorns 1 was moved from the east wall to the central wall separating it from the parlour. Conclusion? It **could** refer to either house.

Fourthly, because Thorns 3 had been reduced to foundation level there is no way of knowing for sure if it had been raised from a single-storey to a double-storey house. However, there are definite signatures in the surviving fabric of Thorns 1 to show that it had been raised in height and when this was done the west gable wall with its fireplace/chimney would necessarily have had to be rebuilt. Conclusion? It **probably** refers to Thorns 1.

Finally, from historical map evidence it is known beyond doubt that Thorns 3 and 13 were demolished in the latter half of the nineteenth century and that Thorns 1 was the last house to be inhabited. Would it have made any sense to incur expenditure on Thorns 3 when the settlement was already in terminal decline? Conclusion? It **must** refer to Thorns 1. The low front wall was raised in height, a new slate (not flagstone) roof was added, the chimney was remodelled and the porch was reconstructed ... all for £16. The 'etc' note in the ledger would have referred to other works that these major alterations made necessary or desirable.

Estate account ledgers note a range of payments made mainly to Henry Slinger between 12 June 1871 and 7 March 1874, all of which were simply entered as 'Repairs' or 'General work' at Thorns except for a single entry on 10 July 1871 which was described as 'work at Farm Yard Barn etc £12 2s 7d'.⁴³ Over the whole period he was paid £54 12s 6d in total.

The last available document in the period 1802-1910 is a set of Land Values, 'popularly' known as the Domesday Books, initiated under the Finance Act 1910.⁴⁴ There are only two entries for Thorns:

Thorns Close gaits, owned by J.A. Farrer and occupied by Thistlethwaite. Gross annual value £20, Rateable value £18

Thorns, owned by W.J. Brown and occupied by John Metcalf of Ashes farm. Agricultural land 302 acres, Gross annual value £66.10s, Rateable value £59.15s; buildings Gross value £3.10s, Rateable value £2.10s

⁴³ NYCRO ZTW III, Additional. Estate LedgerNno. 5, 1870-79.

⁴⁴ NYCRO, NG/V. Duties on Land Values, Horton in Ribblesdale.

The 302 acres (122ha) is much greater than the total in either 1742 or 1824; this discrepancy is due to the fact that by 1910 the former Ribblehead House tenement had been subsumed within Thorns or Gauber. The low rateable value for the buildings at Thorns reflects the reality that as a settlement it had been abandoned at least two decades earlier so by 1910 the houses would have had no cash value whatsoever.

7. Thorns in the Modern Era

An indication of how far down the priority scale Thorns had slipped is provided by a list of properties on which investment had been made in soil improvement, specifically by applying basic slag and bone meal which by then had replaced liming as the preferred method.⁴⁵ A list of fourteen farms in 1912 and the same number in 1913 which were comprehensively treated did not include Thorns though, it has to be said, the list did not include Gearstones or Cam either.

Through much of the twentieth, and into this, century Thorns has been run as one with what used to be the Ribblehead House holding as well as with Holme and Nell Holme, formerly part of the Gauber holding. Many of the fields now have ruinous boundary walls meaning that one is run into another for sheep management purposes so that, effectively, Holme and Nell Holme form one large 'field', the four fields east of Nan Bottom Lane a second unit, and all the others a third unit. What used to be Thorns Cow Close is no longer part of the Thorns estate: the northern part is now part of Far Gearstones Farm and the southern belongs to Nether Lodge Farm. Fig. 13.4 shows current field name codes superimposed on historical field boundaries; Table 13.8 summarises basic data for each field.



Fig. 13.4 Current field code numbers superimposed on historical field boundaries

As stated, Fields 15 and 16 (Holme and Nell Holme) did not form part of the Thorns estate but numbers 20 and 21 (Thorns Cow Close) did so the data in Table 13.8 reflect this. At its maximum extent the estate totalled only 104 acres (42.09ha) of inbye land with Thorns Cow

⁴⁵ NYCRO, ZTW, Box 3. 1910-16 Ingleborough Estate Accounts.

Close adding a further 168 acres (67.99ha) of common outbye pasture. It is difficult to understand how, historically, such a small unit of land could have supported up to six families, but it did. In terms of farming units up to, say, the 1960s it was probably close to the mean size for upland Dales farms based on mixed sheep/cattle husbandry with home and field outbarns in winter use for housing cattle. Even so, Thorns was amalgamated with the former farms of Ashes and Ribblehead House c. 1930 and worked as one unit.

Table 13.8 Current fields at Thorns: summary data

Field number for this project	Defra field no.	Acres	Ha	Modern field name
1		0.29	0.12	Dipping Paddock
2		0.94	0.38	Old House Meadow
3		0.39	0.16	Hogg House Meadow
4		1.83	0.74	High Malley
5	9354	4.03	1.63	Gillheads Meadow
6		13.47	5.45	Capnut Pasture
7		6.30	2.55	Flash
8	0237	2.57	1.04	Lime Kiln Meadow
9		2.67	1.08	Little Meadow
10	0132	5.14	2.08	Pry
11	2226	8.77	3.55	Jammy
12	1403	8.45	3.42	Top Little Pasture
13	0132	16.28	6.59	Low Flat
14	7731	7.93	3.21	Flash Back
15	7010	4.74	1.92	Holme
16	7010	15.86	6.42	Nell Holme
17	1403	8.48	3.43	Bottom Little Pasture
18	3202	11.64	4.71	Back Hools Meadow
19	2254	3.53	1.43	no name
22		1.29	0.52	Low Malley
Thorns total now incl. 15 & 16		123.31	49.91	
20		115	46.54	Thorns Close
21		53	21.45	Fothergills
Historical total excl. 15 & 16 incl. 20 & 21		270.71	109.56	

Source: Defra

Cattle figured more prominently at Thorns until the early 1980s with cattle over-wintered in three of the barns: a maximum of thirty-six head in the bank barn (Thorns 10), fourteen in Back Hools Barn (Thorns 8), and eight in Gillheads Barn (Thorns 5).⁴⁶ Low Flat Barn (Thorns 6) in Pry meadow was not used for housing cattle but rather as an informal sheep shelter, while the cart-arch barn (Thorns 9) was used only for hogs – sheep between six months old and their first clipping were kept in and fed on green grass to get them used to eating hay during their first winter. To feed this number of cattle, hay was harvested in Lime Kiln Meadow, Hogg House Meadow, Low Malley, Gillheads Meadow (Fig. 13.5) and the lower part of Flash up to 1975, and also prior to that in the north-eastern quadrant of Pry. Back

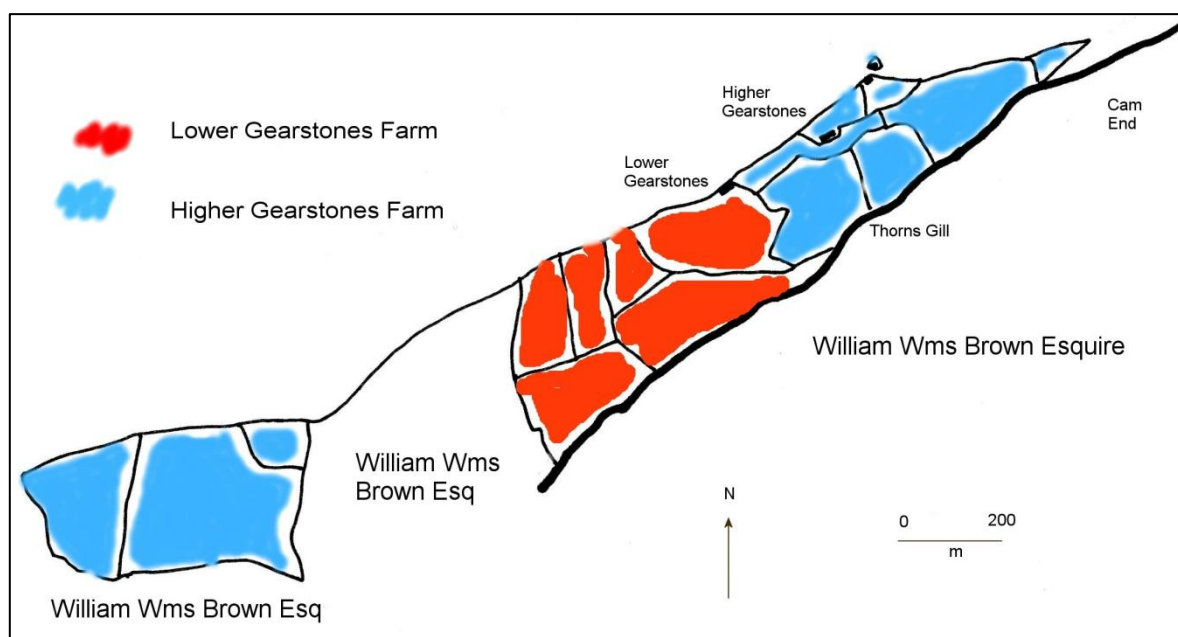
⁴⁶ I am grateful to Reg Dobson for much of the information in this paragraph.

Hools Meadow and Jammy were haytined up to 1981 or 1982. High Flat Barn (Thorns 7) and Holme Barn (Thorns 4) were in a ruinous state even in the nineteenth century. Since then only sheep have been kept at Thorns.



Fig. 13.5 Gillheads Meadow (David Johnson)

PEOPLING THORNS



*Fig. 14.1 Ownership of land at Thorns and Gearstones in 1846.
Redrawn from a 'Map of Estates situated at Higher and Lower Gearstones ...
the property of James William and Oliver Farrer Esq^s' 1846
(NYCRO. ZTW, uncatalogued)*

Contents

1. Introduction
2. Lords of the manor
3. Customary tenants before the Farrer manor purchase
4. The Farrer involvement at Thorns
5. Manor court rentals 1811-97
6. Land Tax assessments
7. Undertenants

1. Introduction

As we have seen already, the earliest definitive record for Thorns dates from 1189-90 as a property of Furness Abbey within its Lonsdale Estate, and six tenants resided here in the early sixteenth century at the Dissolution of Furness Abbey. Beyond that, the settlement appears intermittently in manorial records and other legal and parish papers and, for the second half of the nineteenth century, detail is available from census records.

As legal and social hierarchies affected Thorns, as everywhere else, it will be of help in understanding who played a role at Thorns and what their social status was by discussing each level of the hierarchy.

2. Lords of the Manor

The succession of overall manorial ownerships has been rehearsed above (see Chapter 6.3) but it will be useful to summarise it in brief here. Furness Abbey including its entire estate portfolio was surrendered to the Crown on 9 April 1537 and it remained in Crown hands until after 1620 when it was granted to a royal favourite, the 2nd Duke of Buckingham. It effectively passed to the 1st Duke of Albermarle in 1666 and later to the 1st Duke of Montagu and then by marriage to the 3rd Duke of Buccleuch. In 1810 the Buccleuch Estate sold the manor of Newby in its entirety to the Farrer family for the sum of £5000, in whose hands it has remained in trust ever since.⁴⁷ As we saw earlier, it made no difference whatsoever to the people actually living on the ground who owned the manor – customary tenants paid their annual rent and fines to the manor court in Newby and only dealt with the manor steward, the local agent on the ground.

3. Customary Tenants before the Farrer Manor Purchase

Customary tenants were those admitted as tenant of a farm or other property within a given manor who paid a fixed amount for admittance (an 'entry fine') as well as annual rents determined by the manor court. They had the legal right to sell their holding or to pass it on to someone else at their death. In the manor of Newby all tenants were customary tenants, as opposed to tenants-at-will who could not pass their holding on. It was often the case that customary tenants sub-let their holdings to a third party which was perfectly acceptable as long as the details of the transaction conformed to the customs of the manor in question. The obvious source for details of customary tenants is the manor court rolls, records of each sitting of the court: there is good survival of Newby court rolls.

The earliest post-Dissolution manorial record to have been located dates from the regnal year 1586-87 during which Isabella Witton, widow of William Witton, was admitted tenant of 'one tenement with the appurt[enance]s at Thorns at the yearly rent of [blank]'.⁴⁸

In some cases settlements were listed individually in the rentals but in others they were grouped, making it impossible to say who tenanted this or that tenement. Sadly, this latter is often the case for Thorns. In rental records for 1662 and 1667 'Thornes' is lumped in with Lodge Hall (then called Ingman Lodge) and Gearstones (then Dearestones) with a total between them of eleven tenants, and in 1667 as 'Thornes hamlett' with a total of thirteen tenements, this time excluding 'Gearstons hamlett'.⁴⁹ Of the six tenants at Thorns at Dissolution (see Table 13.4), the only surname still possibly there in 1662 was Weatherhead, though that had become a very common surname across the whole Ingleborough area.

A Court of Survey held at Newby for the Duke of Buckingham on 29 October 1683 listed Thorns by itself.⁵⁰ Leonard Battersby, Alice Procter and Thomas Weatherhead each had one messuage though they paid differing annual rents, specifically 2s 4d, 5s 4d and 6s 6d respectively, suggesting that their holdings varied in size, or possibly land quality. Peter Moor and Stephen Sidgewick each had one 'little messuage' at 3s 5d and 3s 1d respectively. In addition, Agnes Bentham held one 'parcel of ground' at 2s 2d and John Thornton paid annual rent of 10d for 'certain' cattle gaits on Blea Moor. The total annual

⁴⁷ NYCRO. ZTW III, 1.2. Records of Purchases, Buccleuch to Farrer 1810.

⁴⁸ WYAS, Morley. WYL 524/209. 'Extract from the Court Rolls prior to the grant to the Duke of Buckingham'.

⁴⁹ WYAS, Morley. WYL 524/210. Farrer of Ingleborough. Manor of Newby. Rentals 1662-67.

⁵⁰ WYAS, Morley. WYL 524/143. 'Manner de Newby ad Membris in Comit Ebor. Court of Survey'.

value for Thorns was only £1 5s 9d, which contrasts with Colt Park (three messuages, £5 18s 5d), Ashes and Lodge Hall (five and £8 10s 6d), 'Southhouse Gigarth and Borrens' (four and £8 1s 5½d) and Selside (fourteen and £12 4s 5d). In 1683, according to the Survey, no buildings were in a ruinous state, all common land was stinted and 'always have been', there were no quitrents in force (ie a rent payable to the lord in lieu of labour services), but the lack of woodland across the manor was such that the tenants were 'put to great Inconveniencies for want of wood for their Necessary repairs' even though they enjoyed the customary right to cut wood on their own tenements for repairs. They also had the right by custom to 'digg and get Stone flaggs and slate' for their own use without licence ... from the 'severall quarries' that then existed.

A rental series for 1756-1810 lumped Thorns in with 'Camhouses and Lingill': there was still a Battersby and a Sedgwick in 1756 and it may well be that they both still lived at Thorns.⁵¹ Certainly Stephen Sedgwick was paying 2s 7½d annual rent at Thorns in 1760, the same amount as his forbear Mathew Sidgwick had paid in 1729, but more than an earlier Stephen Sidgwick had paid in 1711-13 (1s 6½d). Beyond this, it is not possible to isolate tenants at Thorns from those at Cam or Ling Gill, except that from 1805-10 John Metcalfe and Thomas Armitstead shared a tenement at Thorns paying an annual rent of £1 0s 4d.

After 1810 it all becomes more complicated as there was a general trend across the manor (and elsewhere) to amalgamate small tenements and for customary tenants to sub-let their holdings thereby becoming absentee landlords. For 1811-16 Thorns was parcelled up between William Brown and Samuel Elam who both held tenements at Ashes, Gauber and Ingman Lodge and ran them as combined farm units. Meanwhile, Robert Elam had lands at Thorns in addition to Gearstones, Gale, Colt Park, Ashes, Gauber, Selside, Birkwith, Nether Lodge and at Chapel-le-Dale; and James Jackson 'late James Sedgwick' paid £1 0s 1d 'for lands in Thorns farmhouses' and for Ling Gill. William Lister also held land at Thorns along with Cam and Ling Gill, as did John Metcalfe and Robert Tennant. It is doubtful if any of them ever lived at Thorns: most of them certainly did not.

Deeds and other legal documents provide much of the evidence for customary tenants and the extent to which property constantly changed hands. As early as 1696 John Baynes, an apothecary in Kirkby Lonsdale, conveyed to Leonard Leigh of Slaidburn, described as 'Gent', Gearstones and Thorns for the sum of £400.⁵² Several hypothetical questions are raised here. Firstly, why had Baynes purchased the tenements in the first place or, perhaps, how had he come to inherit them; secondly, why was he now disposing of them; and why did Leigh wish to purchase them? It may be that Gearstones was the attraction rather than Thorns, though given that the roads through the valley at that time were normally in a very poor state even Gearstones can only be described as beyond remote. The deed does not make clear if it was all of Thorns, or what is now Far Gearstones as opposed to what later became Lower Gearstones (the Lodge). Just three months later, Leonard Leigh, then described as of Oxenhurstley in Bowland, conveyed the same property to his son and heir Richard, of Birkett, Knowlemear in Bowland, yeoman, for £300.⁵³ The only plausible rationale for such transactions was that the properties were seen as an investment.

⁵¹ WYAS, Morley. WYL 524/254. 'Newby Lordship Rental begun Lady Day 1756 to 1760'; WYL 524/255. 'Newby Rentals 1785-1846'.

⁵² WYAS, Morley. WYL 524/325. Farrer of Ingleborough. Deeds. 3 October 1696

⁵³ *Ibid.* 7 January 1697.

Later that year Thomas Procter of Thorns, described as a yeoman, and his wife Alice demised to their son and heir Richard, who farmed at Ingman Lodge, for the sum of £30 one close of meadow ground at Intack along with a house, a barn and a stackgarth 'called Gearstones House'.⁵⁴ This suggests that it involved a different part of Thorns and a different Gearstones: as Intack is the long narrow enclosure between Gayle Beck and the modern road this was probably Far Gearstones.

We have already met various generations of the Sedgwick family and they continued to figure prominently in Upper Ribblesdale. In 1720, for example, Matthew Sedgwick of Ingman Lodge, a stockiner, left all his property, which included Ashes, Ribblehead House and Thorns, to his eldest son, who though unnamed was probably another Stephen who was around in 1739.⁵⁵ Meanwhile, Leonard Leigh died and his son Richard inherited all his properties at Gearstones and Thorns as well as Ivescar farm in the valley of Chapel-le-Dale. Richard died in 1741 leaving his properties to his sister, Ann.⁵⁶ She later married Samuel Harrison Esq and in 1755 they installed James Wigglesworth Esq and Thomas Salisbury Gent as tenants in trust but immediately jointly conveyed to these two 'Lower Gearstones' which was then occupied by John Greenbank.⁵⁷ This serves to emphasise how complicated land transactions could be with customary tenants sub-letting to other customary tenants and with undertenants actually working and living on the land. On the other hand, this clears up the confusion between the two Gearstones: it was indeed Higher (Far) Gearstones that the Procter's had while Lower Gearstones (later the inn and lodge) was the Leighs'.

We can also begin to tease apart the various tenancies at Thorns in this period. In 1742, John Battersby of Thorns, yeoman, conveyed to his eldest son Leonard Battersby, also of Thorns, 'all that Mansion or Dwellinghouse situate at Thorns' with the named but unidentified fields that we discussed earlier. Leonard paid his father £55 for the (customary) title and was obliged to settle the annual rent of 2s 4d with the manor court.⁵⁸ One of the two early-modern tenements at Thorns became known as Battersby's for this reason, though for how long prior to 1742 the family had been customary tenants is unknown.

If we fast forward to 1780, John Sedgwick and Thomas (altered in the legal document to James) Redmayne of Yarl's Ber (Ingleton) were found to be tenants in common by the will of John's father Stephen, dated 3 June 1779. By an indenture dated 12 April 1781, John Sedgwick alienated to James Redmayne his moiety (half-share) at Thorns as well as Ashes and Ribblehead House for £660 with the annual rent fixed at £1 6s 2¾d. Thus, the second early-modern tenement at Thorns was henceforth referred to as Redmayne's.

It should again be stressed that neither of these sets of transactions means that the Battersby or Redmayne families lived at Thorns: they sub-letted the tenements and drew rental income accordingly. For example, on 6 April 1782, Leonard Battersby demised to James Lister of Gearstones, yeoman, what he had taken over from his father John in return for payment of £194 15s and at the same annual rent as in 1742. The tenement stuck with its Battersby's name though.

Another name enters the frame in 1788. Henry King was found at the manor court sitting on

⁵⁴ *Ibid.* 20 December 1697.

⁵⁵ WYAS, Morley. WYL 524/324. Will, 23 February 1720.

⁵⁶ WYAS, Morley. WYL 524/325. 21 April 1743.

⁵⁷ *Ibid.* 15 July 1755.

⁵⁸ WYAS, Morley. WYL 524/324. Abstract of title 4 February 1742. All references following this are from 524/324.

10 April to be tenant of James Redmayne by an indenture dated 12 February 1782 at Thorns, Ashes and Ribblehead House at an annual rent of £2 12s 5½d. From this we must conclude that Redmayne, like Battersby, had sub-tenanted his tenement. A further Indenture complicates the issue: on January 1789 James Sedgwick of Thorns and Henry King entered into an agreement.⁵⁹ Regrettably, the document is so worn the text cannot be transcribed.

On 13 February 1797 the names King, Redmayne and Lister come together in yet another indenture. Emmanuel King of Austwick, Gent, son and heir of Henry King, James Redmayne of Yarslber, Gent, and James Lister of Gearstones, yeoman, had entered into an £850 mortgage agreement, dated 12 February 1782. By this, Redmayne had conveyed to Henry King his estate at Thorns. The sum was repaid in full and Lister had agreed to purchase the Thorns estate from Redmayne for £342 which price included nine beastgaits on Camm (Cam End now), eleven on Thorns Close and twelve on Gale (now Gayle) Moor north of Cam End. Lister was duly admitted tenant at the manor court at an annual rent of 5s 6½d but the tenement was actually occupied by William Haynes.

Step forward again and on 2 November 1802 it was recorded in the manor court that James Lister had demised to Robert Elam Esq of Woodhouse Grove, Apperley Bridge, on 26 May 1802, part of his tenement at Thorns and Elam claimed rights to nineteen beastgaits in Thorns Cow Close saying that Lister was entitled to only thirteen. It was out of this legal procedure that the division of the Cow Close into two was made with Elam getting the larger (northern) share (169 acres, 68ha) henceforth called Thorns Close and Lister the smaller southern section (115 acres, 46ha) henceforth (officially) known as Thorns Moss but later and unofficially as Fothergill's.

In 1813 James Lister died and he bequeathed his 'Estate at Thorns ... commonly called Battersby's' plus three beastgaits in Thorns Close, seven on Blea Moor and two on Camm to his widow.⁶⁰ By the same probate will Lister bequeathed to his other son James all his estate 'commonly called Redmayne's' at Thorns with various beastgaits on Camm, Thorns Close and Blea Moor. William was duly confirmed as customary tenant at Thorns and Gearstones at a court sitting on 15 April 1814. A further court record (11 April 1817) named William as 'innkeeper' at Gearstones so this confirms him at Lower rather than Higher (Far) Gearstones. However, in that same month it was noted that by William's will he had bequeathed his tenement at Thorns and the balance of his estate to his friends John Lister of Foredale (Helwith Bridge) and William Lupton of Slated House,⁶¹ both yeomen, with conditions attached. They were to support William's widow and his four daughters Susannah, Mary, Sally and Bell; and were to sell the Thorns moiety when his widow died. Clearly William had died very prematurely. The same court admitted young James, son of James Lister, as tenant at Thorns at an annual rent of 5s 6½d.

Of all the players detailed thus far only William Haynes can definitively be said to have actually lived at Thorns; most of the others resided elsewhere.

⁵⁹ This document is in a private collection and I am grateful to Ben McKenzie for letting me have an electronic copy.

⁶⁰ *Ibid* and WYL 524/325.

⁶¹ In Austwick parish, at NGR SD751 658.

4. The Farrer Involvement at Thorns

At this point the Farrers enter the equation not just as lords of the manor of Newby but as customary tenants: on 18 November 1817 Oliver Farrer purchased part of the Gearstones Estate.⁶² In 1824 Oliver and his brother William entered into an agreement with James Lister and his mortgagee in the form of a 'Customary Conveyance and Surrender of a Customary Tenement called Thorns'.⁶³ This concerned Redmayne's. James Lister the younger had borrowed on mortgage the finance necessary to take on the tenement, from Isabella Hall, spinster of Long Preston. By the agreement of 1824 Lister agreed to sell Redmayne's to the Farrer brothers for the sum of £1000 thereby discharging his mortgage obligations. According to this agreement, in addition to a house and three barns, Redmayne's comprised an orchard and garden (38 perches = 910m²), Little Meadow (>2 acres = 0.81ha) and Great Meadow (>39 acres = 15.78ha) plus 'Thorns Close alias Cow Close' (55 acres = 22.26ha), eleven beastgaits in Camm Side and two on Blea Moor. James Lister stayed on as undertenant for one year at an annual rent of £35, so we can say conclusively that he, too, lived at Thorns. Lister was bound by the agreement to maintain all buildings and walls.

Meanwhile, the other customary tenement at Thorns was soon to be in the name of John Lister, now of Bentham rather than Foredale, and of William Lupton, still of Slated House, both yeomen, who were recognised by the manor court on 24 April 1829 as tenants in trust as William Lister's widow had now died, as had John Lister. In the following year Lupton's will (19 August 1830) decreed that his wife Elizabeth should inherit Thorns, along with his other holdings, upon his death and that, when she died, it should all go to their daughter Grace Chapman. Neither she nor her husband appears again in the Thorns record.

Another name enters the scene but with no known date for when he first became involved, though manor court rental rolls show him owning land hereabouts at least by 1811 (see below). William Williams Brown Esq of Leeds had purchased the 'greater part' of what had decades before belonged to Stephen Sedgwick at Thorns, Ashes and Ribblehead House,⁶⁴ this adds to the complexity of how the land at Thorns was sub-divided between different parties. In 1837 Brown was party to a complex legal agreement which involved four discrete parties: John Lupton (William's son perhaps?) of Marsh House near Carnforth, yeoman; Edmund Thistlethwaite and his wife Susannah, innkeeper, of Newby Head, Mary Whitworth of Leeds, widow, Joseph Weevers of Leeds, banker's clerk, and his wife, and Thomas Metcalfe of Hawes and his wife; James William and Oliver Farrer of London and Ingleborough; and Brown, now of Chapel Allerton, Esq.⁶⁵ The Indenture concerned transfer of ownership of the customary tenement at Thorns known as Battersby's, then occupied by Robert Fothergill 'or his undertenants', to Brown who now owned not only Thorns but also Ribblehead House, Ashes and Gauber.

To sum up the situation in 1837, William Williams Brown owned the greater part of Thorns as well as much of the surrounding land, while the Farrers owned but a small part of Thorns. Fig. 14.1 shows the extent of much of the land owned by each in 1846 when it was no different from in 1824 but the map does not extend as far south as the Farrers' part of

⁶² WYL 524/325.

⁶³ WYL 524/324 14 May 1824.

⁶⁴ WYL 524/324. Supplement to the Abstract of Title. ? April 1824.

⁶⁵ WRRD. Wakefield. Deed vol. MO, page 419, Deed no. 427, Lupton to Brown 1837.

Thorns: the Farrer estate owned Thorns and much of Upper Ribblesdale and Ribblehead until the early 1950s.

5. Manor Court Rentals 1811-86

Table 14.1 Customary tenants at Thorns, 1811-86

Period	Customary tenant	Previous customary tenant	Tenement	Annual rent (£)
1811-16	Wm Williams Brown	James Brown Samuel Elam Robert Elam	Thorns, Ashes, Gauber, Ingman Lodge	5 6s 7½d
	Robert Elam		Thorns, Gearstones, Gale, Colt Park, Ashes, Gauber, Selside, Nether Lodge, Birkwith	3 15s 9½d
	James Jackson	James Sedgwick	Thorns, Linggill	1 0s 1d
	William Lister	Thomas Lister	Thorns, Cam, Linggill	9s 2d
	John Metcalfe	Thos Armitstead	Thorns, Cam, Linggill	1 0s 4d
	Robert Tennant	Thomas Clegg	Thorns, Cam, Linggill	15s 11½d
	Thomas Town & Thomas Procter		Thorns, Cam, Linggill	10s 1d
1826-40	Wm Williams Brown	Robert Elam	Thorns, Ashes, Gauber, Ingman Lodge	6 0s 7½d
	Farrer	William Lister	Thorns, Ashes, Gauber, Ingman Lodge	10s
	Farrer	James Lister	Thorns, Ashes, Gauber, Ingman Lodge	5s 6½d
	Wm Lister's Trustees	William Lister	Thorns, Cam, Linggill	2s 4d
	James Metcalfe	John Metcalfe	Thorns, Cam, Linggill	1 2s 7d
1846-50	Wm Williams Brown		as 1826-40	6 0s 7½d
	Farrer		as 1826-40	10s 0d
	Farrer		as 1826-40	16s 7d
	Farrer		Thorns, Cam, Linggill	1 2s 6d
	Wm Lister's Trustees Metcalfe		as 1826-40 as 1826-40	2s 4d 1 2s 7d
1851-54	Wm Williams Brown		as 1826-40	6 0s 7½d
	Farrer	Occupier: Robert Fothergill	Thorns and various beastgaits	5s 6d
	Farrer	Occupier: J. Swinbank of Cam & Newby Head	Thorns, Cam, Linggill	1 2s 6d
	Wood Metcalfe	Late James Metcalfe	as 1826-40	1 2s 7d
1861-70	Samuel Jas. Brown	Wm Wms Brown	as 1826-40	6 0s 7½d
	Farrer	Occupier: Thos Lamb of Nether Lodge	as 1826-40 plus beastgaits	5s 6½d + 6½d
	Farrer	Late Tennant	as 1826-40	16s 7d
	Rev. John Metcalfe	Late James Metcalfe	as 1826-40	1 2s 7d
1871-75	Messr Metcalfe, Gauber	Late S.J. Brown	as 1826-40	6 0s 7½d
	Farrer	Occupier: Robert Fothergill	Thorns	5s 6½
	Farrer		Beastgaits	6½d
	Farrer	Occupier: Dinsdale	as 1826-40	1 2s 6d
	Eleanor & Garth Metcalfe	Occupier: Lambert of Cam	as 1826-40	1 2s 7d
1876-80	Farrer	Occupier: Lambert of Nether Lodge	Thorns	10s 0d
	Farrer	Occupier: James Fothergill & James Tennant	Thorns	5s 6½d
	Farrer	Occupier: James Fothergill and John Tennant	Beastgaits	6½d
	Farrer E & G Metcalfe	Late C. Tennant Occupier: Lambert	as 1826-40 as 1826-40	16s 7d 1 2s 7d

Table 14.1 draws together customary tenants current and past during the period 1811-86 as well as their holdings and the annual rent payable to the manor court.

Rental accounts for 1881-97 make no mention of Thorns: it had ceased to exist as a settlement and was no longer separated out in farm rentals.

6. Land Tax Assessments

Governments have a habit of imposing taxes on the populace that soon become resented and unpopular. Such was Land Tax, first introduced in 1697 to raise funds to defend the country against French belligerence. A quota was levied on each county, sub-divided on a parish basis and administered by local commissioners who appointed local tax assessors and collectors to do the 'dirty' work. Tax was calculated on so many pounds per acre. Owing to the outcry against corruption and favouritism, the system was reformed in 1798 and any landowner – called 'proprietors' by the system – whose land was deemed to be worth less than £1 was exempted. The system was again reformed in 1815-16. Survival of Land Tax records is usually quite good and for Horton parish, Upper Division, they are extant and those for the period 1783-1831 are discussed here.

What the returns do not indicate is which tenements were being taxed at this rate or that but they do list the names of all proprietors, all occupiers and the tax rate levied – this varied from county to county. In our area it was levied at 4s in the pound. Table 14.2 shows the names of those proprietors directly relevant to the Higher Division of Horton parish for selected years.

Table 14.2 Horton parish, Higher Division. Selected Land Tax data

Years	Proprietors	Rate
1783	Mr Elliot	£1 16s 2½d
	Thomas Procter	13s 2½d
	Widdow Cragg	16s 6d
	Thomas Lister	14s 1d
	James Lister	3s 5¾d
	Mr Wetherherd	£5 1s 3d
	James Redmayne	£3 4s 7¼d
1805	Rowland Atkinson	14s 2d
	Robert Tennant	16s 6d
	Robert Elam	£11 12s 4d
	James Lister	7s 6½d
1827	Rev'd Atkinson	13s 2½d
	Christopher Bateson	£1 11s 10½d
	William W Brown	£11 7s 2d
	James Farrer	£3 16s 1¼d
	Thomas Foster	£2 17s 4¾d

For highlighting, see text below

For comparison, the total for the Higher Division in 1783 was £43 14s 0d and for the Lower Division £48 14s 0d. In 1831 the Higher Division paid £41 10s 11¼d.

Though it is not possible to state what tax rates were levied on any given tenement under a single ownership, because some of 'our' landowners/customary tenants held land in Ingleton parish as well as Horton, it is possible to separate the former off. Thus, Gearstones, Ribblehead House and Gauber can be excluded as they fall within Ingleton parish; Gayle Beck forms the parish boundary. However, Ashes, Lodge Hall/Ingman Lodge and Nether Lodge are within Horton.

It is immediately clear from the sample shown in Table 14.2 that there were marked variations in assessed Land Tax values. Those highlighted in Table 14.2 had definite connections as customary tenants/landowners at Thorns: their total tax liability varied partly depending on how much land they held on other tenements, and partly on the size of their holding at Thorns itself. In 1805 James Lister, for example, owned very little but presumably about twice that owned by the earlier James in 1783. Why Henry King's name does not appear is puzzling as he is known to have held land at Thorns.

The manor court system gradually lessened in power and authority, certainly in the manor of Newby, from c. 1750 to c. 1850 by which time it was largely irrelevant, and the status of customary tenant was abolished by Act of Parliament in 1922 (Straughton and Winchester in Rodgers et al. 2011, pp. 38 and 122).

7. Undertenants

Land Tax registers

Land Tax data also listed all occupiers of land, ie the undertenants one step lower on the social ladder than the owners/customary tenants and paying rent to the latter. As with owners, it is not possible to definitely tie occupiers in to particular tenements from Land Tax data alone, so the details summarised in Table 14.3 refer to the Higher Division as a whole but the general trends would equally apply just to Thorns.

One point evident in Table 14.3 is the lack of permanency among many of the undertenant strata of society: received knowledge that people stayed put for generations in upland areas does not really stack up. Out of the twenty-seven families represented here, more than half only had one generation in the Higher Division; only five ran to multiple generations; and only one family – the Redmaynes – extended across the entire period shown in the Table. The Listers extend across forty-three years but they also lived at Gearstones, the Mittons for thirty-two but they are known to have lived at Syke and Dry Lade, and the Procters twenty-four years but at one time or another they lived at many farms in Upper Ribblesdale. Only the Redmaynes can firmly be linked to Thorns for the whole forty-eight years.

One of the Thorns Listers – James – must have fallen on hard times during the depression that set in when the Napoleonic Wars came to an end in 1815: in 1818 he was disbursed £5 17s for the year from parish Poor Relief.⁶⁶

⁶⁶ NYCRO. Minutes of the Overseers of the Poor. Quoted in HHG 1984, p. 38.

Table 14.3 Occupiers of land, according to Land Tax data, 1783-1831

Family name	No. of Christian names	First entry	Last entry
Atkinson	1	1809	1811
Baynes	1	1794	1794
Bentham	2	1791	1798
Beresford	1	1829	1831
Chamley	1	1783	1789
Cragg	2	1783	1814
Dinsdale	1	1817	1817
Eggin	1	1783	1783
Fothergill	2	1818	1831
Hill	1	1814	1815
Jackson	1	1819	1819
Kendal	1	1793	1795
Lister	4	1788	1831
Lund	1	1790	1792
Metcalfe	3	1805	1827
Mitton	4	1799	1831
Moore	2	1783	1831
Procter	3	1783	1807
Redmayne	3	1783	1831
Rider	1	1815	1815
Stott	1	1804	1807
Swinbank/aka Swithenbank	2	1790	1931
Taylor	1	1817	1831
Thistlethwaite	1	1809	1811
Whaley	2	1795	1807
Wilkinson	1	1818	1818
Wilcock	1	1825	1825

Those highlighted in yellow are known to have been undertenants at Thorns

Farrer Estate records also shed light on the economic situation at Thorns through much of the nineteenth century. In 1825, for example, Robert Fothergill's tenement had its gross annual rental set at £45 9s 6d with a rateable value of £43 4s.⁶⁷ This gross value contrasted with £123 for Nether Lodge, £138 for Cam, £183 for South House and £215 for High Birkwith: by this time Thorns was not exactly a prized possession. Half-yearly rental records show Robert Fothergill and William Coats being levied £25 and £21 respectively for their tenements in 1834, Fothergill £27 in 1839, £35 in 1844 but only £25 from 1856-59, and £32 10s in 1860 and 1861; Coats appears in the rental on this one occasion.⁶⁸ The only entry for 1870 is that Fothergill held twenty-nine beastgaits on Cam End; for 1879 that the fee farm rent for Thorns Close was only 6d.

Census records

National population censuses began in 1841 so it is of interest to compare the Land Tax data for 1831 with census entries which did state where each family lived.

⁶⁷ NYCRO. ZTW III. 5/3. Valuations 1807-1938.

⁶⁸ NYCRO. ZTW III. 6. Rentals 1834-1888; ZTW (Additional). 'Latter Half Years Rent 1855, Collected 28 May 1856'.

In 1831 Robert Fothergill (born 1796) was a sub-tenant; in 1841 he was recorded living at Thorns with his wife Ellen, seven sons and two daughters; Thomas Fothergill (born 1811), probably his younger brother, was also recorded living at Thorns with his children and Robert Lodge, a live-in manservant. Both Fothergills were recorded as farmers. A third household was made up of James Bentham (born 1801), Elizabeth his wife, one son and one daughter: he was an agricultural labourer.

The 1851 census records two households at Thorns: Francis Lambert (born 1819), Mercy his wife, two sons and one daughter, farmed 173 acres (70ha) so clearly worked land other than at Thorns. Robert Fothergill was also living at Thorns with his wife, five sons and one daughter farming only 20 acres (8.1ha), and one might wonder how they possibly managed to exist with such a large family on so small a plot of ground, having had twelve children in all. The answer, of course, lies in the fact that Robert was gainfully employed by the Farrers dry-stone walling and general labouring, at least from 1836-53 (see Table 13.6).

The 1861 census records only one household, that of James Fothergill (born 1825), Robert's eldest son, who lived with his younger brother Francis (born 1836). He was clearly not yet married, and was listed as a farmer of 91 acres (36.8ha) so had taken on that part of Thorns previously worked by Lambert. It was common practice at that time for younger siblings to act as unpaid labourers or live-in servants which is what Francis probably did. An intriguing entry in the Estate Ledger Book noted that £5 10s had been given to James for 'giving up early possession of Thorns'.⁶⁹

By 1871 Francis Fothergill had moved on and James, still unmarried, now lived with his younger brother Septimus (born 1844), who no doubt had replaced Francis as live-in servant. James was still listed as a farmer, though he was also employed by the Farrers around 1860 in the rebuilding of Back Hools Barn (see Tables 13.6 and 13.7). In 1881 James had also moved on and the only resident family at Thorns was that of Richard Parker (born 1842) with his wife Jane, three sons and a daughter. He was a shepherd presumably looking after the sheep flocks over Thorns, Cam and probably Gayle and Blea Moors, on contract and paid by those farmers who held gaits on the various stunted pastures. The 1891 census, rather sadly, stated 'one uninhabited dwelling'. Neither the 1901 nor 1911 censuses mentioned Thorns.

Parish records

Parish records across the country were maintained on a systematic basis from the reign of Henry VIII and they are a mine of information for researching family and local history prior to the introduction of national birth, marriage and death records in 1837. Parish churches were obliged to keep a register of all baptisms, marriages and burials within the parish, and survival rates are normally very high. Baptismal registers provide the name of the mother and father, the name and gender of the newborn, sometimes the father's occupation and sometimes the position of the child in the family (eg second son or third daughter of ...). For those registered in outlying settlements or isolated farms the place of residence is often stated, though not universally. For Horton parish baptism records rarely give the residence before 1614 and almost none is given from 1673 to 1712, and no occupations are stated in earlier entries. Marriage records give the name of the groom and the maiden name of the bride and normally where each lived, though not for pre-1630 entries and few were recorded

⁶⁹ NYCRO. ZTW (Additional). Ledger Book 4, 1859-70. 25 May 1860.

between 1669 and 1812. In later entries the groom's occupation was given. Burial records gave the name of the deceased, the age at death, residence, and (spasmodically) occupation though not at all before 1609. For children the records always stated 'son/daughter of ...'.

Baptisms of Thorns residents

Table 14.4 summarises baptisms of children who can directly be related to Thorns.

Table 14.4 Thorns: baptisms 1600-1846

Surname	Recorded baptismal dates	Occupation of father
Bentham	1618, 1622, 1627, 1762	Farmer (1762)
Battersby	1624, 1664, 1667, 1751	Farmer (1751)
Langstroth	1625	
Sayers	1626	
Procter	1643, 1772, 1783, 1784	Farmer
Wetherhead	1651, 1657	
Lawson	1729, 1732	Husbandman
Wilkinson	1738	
Metcalfe	1744, 1752, 1766, 1767, 1769 1771, 1897	Husbandman, then farmer
Green	1747	
Peacock	1750, 1752	Farmer
Bradley	1761	Farmer
Cragg	1773, 1780, 1784, 1792, 1794	Farmer
Atkinson	1773, 1776, 1782	Shoemaker; farmer 1782
Hall	1781	Labourer
Chamley	1783	Farmer
Grisedale	1786	Labourer
Mitton	1798, 1799, 1802	Farmer
Lister	1801, 1803, 1808, 1810, 1821	Farmer
Coulton	1805	Farmer
Swinbank	1809, 1810, 1812, 1815	Farmer
Fothergill	1828, 1831, 1832, 1833, 1835, 1836 1837, 1839, 1841, 1843, 1845, 1846	Farmer
Dinsdale	1827	Farmer

Marriages related to Thorns

Table 14.5 Thorns: marriages 1600-1800

Groom's name	Occupation	Bride's name	Year of marriage
Bentham, Thomas		Weatherhead, Alice	1617
Weatherhead, Francis		Moore, Margaret	1656
Taylor, Thomas		Weatherhead, Agnes	1656
Geldard, Robert (Ingleton)		Battersby, Elizabeth	1662
Bentham, Matthew (Dry Lade)		Battersby, Agnes	1672
Procter, Richard (Clapham)		Greenbank, Alice	1681
Procter, Thomas		Burton, Elizabeth	1698
Sedgwick, James		Metcalfe, Ann	1748
Metcalfe, George	Labourer	Howson, Anne	1761
Procter, Thomas	Farmer	Battersby, Anne	1782
Cragg, William	Labourer	Jowet, Mary	1793
Lister, Anthony	Farmer	Lister, Mary	1800
Lister, James		Mitton, Nanny	1805

Those highlighted in yellow definitely or most probably lived at Thorns before marriage

Compared with baptisms and burials, there are remarkably few recorded marriages for Thorns (Table 14.5).

Burials of Thorns residents

Table 14.6 lists all recorded burials that can be definitively related to Thorns.

Table 14.6 Thorns: burials, 1600-1846

Surname	Burial of	Father's occupation	Burial date
Weatherhead	Adult male		1610
	Female child		1623
	Adult male		1630
	Female child		1639
	Male child		1641
	Adult female		1654
Calvert	Adult male		1613
Bentham	Female child		1618
	Female child		1624
	Male child	Husbandman	1739
Burton	Adult male		1620
Hesleden	Adult female		1622
Moore	Female child		1623
	Adult male	Yeoman	1728
	Adult female		1737
Langstroth	Adult male		1655
	Adult female		1659
Allan	Adult female		1657
Leake	Male child		1662
Atkinson	Adult male		1663
Taylor	Infant		1668
	Adult male		1772
Jackson	Female child		1713
Eglin	Adult male	Clothier	1731
Battersby	Adult female		1738
	Adult male	Yeoman	1744
	Female children (2)	Farmer	1751
	Adult female		1753
	Adult female	Yeoman	1766
	Adult female		1777
Procter	Adult male	Husbandman	1742
	Adult female	Widow pauper	1772
	Adult female	Farmer	1780
Metcalf	Male child	Husbandman	1744
	Adult male	Farmer	1746
Cragg	Adult female		1715
	Adult female		1745
	Male child		1773
	Male child		1780
	Male child	Farmer	1792
	Male child & adult female		1793
	Female child		1794
	Male child	Labourer	1795
	Male child	Labourer	1796
Peacock	Adult male	Labourer	1745
	Male child	Farmer	1752
	Adult male	Yeoman	1753
Green	Female child	Farmer	1747
Thomson	Adult male		1767
Grisdale	Adult female	Farmer	1790
Bains	1 female & 1 male Children	Farmer	1797
	Female child	Farmer	1807

	Female child	1820
	Male child	1824
	Adult female	1825
	Adult male	1826
Tennant	Adult female	1829
Swinbank	Adult female	1829
	Adult female	1835
Staveley	Adult male	1837
<hr/>		
Wife Park		
Hesleden	Adult female	1622
Howson	Adult female	1624
<hr/>		

Various conclusions and social comments can be made from parish records: this aspect of Thorns will be discussed and drawn together in Chapter 15.3.

Probate wills and inventories

It was not universal that people nearing the end of their life made a will or that an inventory of their goods and chattels was made so, as with parish records, coverage is partial. Similarly, by no means did all such probate documents state the place of residence: in many cases the wording followed the manner of ‘... of the parish of Horton in Ribblesdale’. Because some surnames were so common across the Ingleborough area – Procter, Weatherhead, Lambert, Sedgwick to name but four – it cannot be said that any unlocated wills were connected with Thorns, even if the given name and surname were known from Thorns.

Twenty-seven probate documents which named Thorns have been seen spanning the period from 1546 to 1813 and breaking down as follows:

1546-1599 eight
1600-1699 eleven
1700-1799 seven
1800-1813 one

Two were administrations (A in Table 14.7), that is, brief documents drawn up to deal with a person’s estate if the deceased had died intestate; seventeen only had wills (W), including two which also involved a legal deed (D); four were inventories (I) only, lists of the deceased’s worldly goods, credits, debts and cash in hand (‘His/her purse’); and four consisted of a will and inventory (W & I).⁷⁰ The full list of names and the breakdown of document type are given in Table 14.7.

Five probate inventories are of value in adding further to the emerging picture of life at Thorns, and that of Thomas Baines (Gent, 1687), who lived at Gearstones but held one tenement at Thorns, shows the contrast between the two holdings: his home farm had seventeen cattle, one bull and forty-two sheep, plus a young colt, and the total value of his estate was £87 8s with no debts outstanding.

⁷⁰ Acknowledgement is duly given to those members of Horton History Group who transcribed many of the wills and inventories.

Table 14.7 Thorns: probate documents 1546-1813

Name of deceased	Date of document	Occupation	Type of document	Resident at Thorns – R Held land at Thorns – L	Source
Escombe, John	1546		A	R	B
Thistlethwaite, Giles	1570		W	R	B
More, Francis	1572		W	R	B
Bentham, Thomas	1582		W	R	B
Thistlethwaite, Bryan	1584		W	R	B
Thistlethwaite, Edward	1591		W	R	B
Bentham, Giles	1595		W	L	B
Weatherhead, Alice	1597		W D	Prob. R at Wife Park	B
Moore, Stephen	1610		W	R	B
Weatherhead, John	1612		W	R	B
Bentham, Jeffrey	1621		W	R at Wife Park	B
Weatherhead, Isabell	1622		W	R at Wife Park	B
Moore, Peter	1624		A	R	B
Allan, Sissaly	1649	Widow	W	R	B
Procter, Leonard	1661		W & I	L	L
Atkinson, Richard	1663	Husbandman	W	R	B
Bentham, Mathew	1675	'Cloather'	W	R	B
Howson, William	1680		W	L	B
Baines, Thomas	1684	Gent	W & I (1687)	L	B
Bentham, Agnes	1706	Spinster ⁷¹	W & I	R	B
Sidgwick, James	1707	Yeoman	W & I (1710)	R	B
Moore, Peter	1728	Husbandman	I	R	B
Eglin, Richard	1731		I	R	B
Moore, Grace	1733	Widow	W	R	B
Procter, James	1742	Husbandman	I	R	B
Peacock, Richard	1753	Husbandman	I	R	B
Lister, James	1813		W & D	R	N

Sources: B = Borthwick Institute for Archives; L = Lancashire Record Office (WRW/L);
N = NYCRO ZXF2/2 and North Riding Registry of Deeds, vol. 158, f. 415

On the other hand, James Sidgwick (yeoman, 1710) who lived at Thorns only had five cattle and no sheep or horse, and his estate was valued at only £19 15s with outstanding debts of £13 16s 4d: for a relatively high-status yeoman farmer this was almost pitiful – unless he had disposed of much of his estate prior to his death in which case it would not appear in the inventory which was conducted after death.

Peter Moore (husbandman, 1729) also lived at Thorns and his estate was valued at no less than £72 7s 6d with outstanding credits of a further £64. He had forty sheep and one cow. Richard Eglin (1731), also living at Thorns, had an estate valued at £20 10s but with debts of £13, only five cattle and one mare but no sheep. The estate of James Procter (husbandman, 1742) was valued at £36 12s 6d and he had twelve cattle and one mare but no sheep.

Richard Peacock (husbandman, 1753) was worth the same as Procter (£34 7s 6d) though his farming operations were very different: Peacock had seven cattle and two horses but forty-six sheep.

⁷¹ The word spinster originally meant a woman who spun wool or linen for a living; only in the eighteenth century did it take on its modern meaning of an unmarried woman. Thus, Agnes Bentham would have been the former.

DRAWING IT ALL TOGETHER: SURVEYING, ARCHAEOLOGY AND DOCUMENTARY RESEARCH



Fig. 15.1 Thorns 1 in the mid nineteenth century

Contents

1. Making sense of the excavated structures
2. Geophysics
3. People at Thorns
4. Battersby's and Redmayne's on the ground
5. Decline and abandonment

This chapter draws together the various strands of the *Thorns through Time* project, using evidence revealed by eighteen months of detailed field surveying and targeted excavation as well as long-running, comprehensive archival research.

1. Making Sense of the Excavated Structures

Thorns 1 – part-standing house

Incorporating notes by Alison Armstrong

There is no question that this was a domestic building and careful examination of its surviving sections while stabilisation and consolidation works were underway in 2017 enabled much detail to be added to what was discovered during the Vernacular Buildings survey (see Chapter 10). This was facilitated in particular by the necessary selective

clearance of rubble from within the house and the deliberate exposure of the lower part of surviving walls, specifically, the west and east gable walls, the dividing wall between its two bays, and the dividing wall between the west bay and the added rear dairy. Fig. 15.2 shows the scale plan compiled and made possible by the building works. External length of the house, excluding the two outbuildings, is 10m (33 feet) and external width 6.35m (20 feet); the internal floor area of the parlour is 18.75m² (210 square feet) and the bodystead 19.25m² (207 square feet); normally, the bodystead would be the larger of the two rooms.

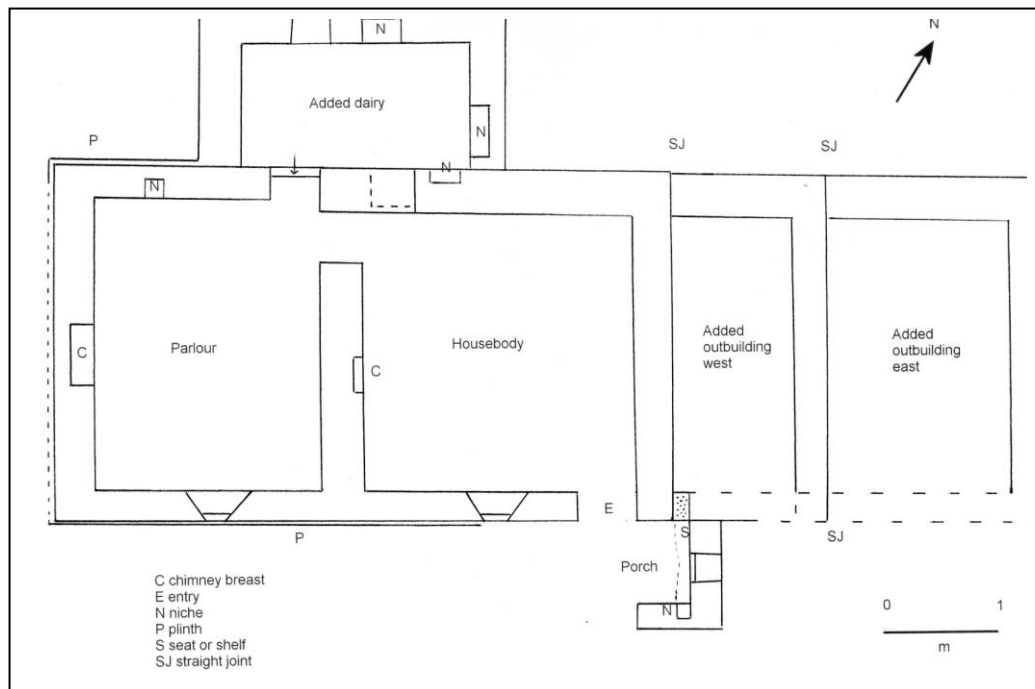


Fig. 15.2 Thorns 1, final scale plan compiled after building works

It quickly became clear that the house does not contain any straight walls and few right-angled corners, which is typical of early post-medieval stone buildings walled with cruck construction. The front walls of the two added outbuildings are shown on the plan with pecked lines because the walls to be seen now were built after the house had been abandoned when the track alongside was realigned and re-walled.

There is clear evidence in the fabric of the building that it had once been a cruck-framed house with a low roofline, a steep (probably ling-) thatched roof, a stone plinth wrapped round the parlour walls (P), a padstone on the front wall between the two bays, possible holes in the front wall inner face for a cruck tie beam, and a large lintel to the front doorway (E) with curved upper corners. The bodystead (or housebody) – the east bay where most domestic functions took place – had a fireplace that was probably originally sited on the east gable where there may be an extrusion of stonework hiding in the rubble on the outer face though there is no sign in the internal masonry of a chimney breast. All these criteria point to a house of 1600 or even earlier. Thicker walls in the original two-bay house (650-700mm) suggest an earlier build than the two attached outbuildings (500-650mm) and the porch (450mm).

Around 1836-37 the roof was heightened to create an upper storey and good two-light mullioned windows were inserted (see pp. 226-27). A round-headed fire window, whose sill was found among the rubble spread and whose lintel was found reused as a facing stone in the upper part of the west bay (Figs. 15.3 and 15.4), may have been inserted at this time, giving light to a dark corner close to the fireplace. The drilled hole held an iron rod to support the fragile glass, held together by lead.



Fig. 15.3 The fire window lintel as found reused in the front face of the house. The view here is on the inside of the wall where it had been hidden from view prior to building consolidation works (200mm scale) (David Johnson)



Fig. 15.4 The outer face of the reused fire window lintel, with Simon, one of the building team, holding the 200mm scale (David Johnson)

There was almost certainly a firehood over the fireplace in the parlour – the ‘best’ or private room of the house – with a ceiling of timber joists spanning across to a central beam. The fireplace in the bodystead must also have been moved during this phase from the gable wall to the central dividing wall when the original cruck frame was taken out and a stone cross-wall inserted in its place (Fig. 15.5), with a doorway connecting the two rooms at the north end of the cross-wall, indicated by a straight joint in the masonry (Fig. 15.6).



Fig. 15.5 The restored stub from the second-phase dividing wall between bodystead (to the left) and parlour (to the right) (David Johnson)



Fig. 15.6 The straight joint indicating the doorway from bodystead to parlour (David Johnson)

It is likely that in 1836-37 the rear dairy (8.5m² or 91 square feet) was added as an outshut, probably replacing an earlier and smaller dairy at the rear (north) side of the bodystead where there is partial survival of a window. A doorway was cut through the rear wall of the parlour to give access to the added dairy with two steps down to the lower level of the outshut. The dairy was lit by a splayed window in its rear wall (which at first sight from outside may now be mistaken for a door). During this phase the former mullioned front windows were enlarged by heightening and lowering, and with small-glazed sash windows added. The old lintels and sills were reused. The porch was rebuilt on the front doorway, complete with a flagstone seat or shelf and a niche, during this rebuild (Fig. 15.7).



Fig. 15.7 The seat or shelf in the porch. The floor level lies below the later accumulation of soil (David Johnson)

Fig. 15.8 is a reconstruction of how the house may have looked in the sixteenth-century, and Fig. 15.9 how it might have looked in its final, post-1837 phase.

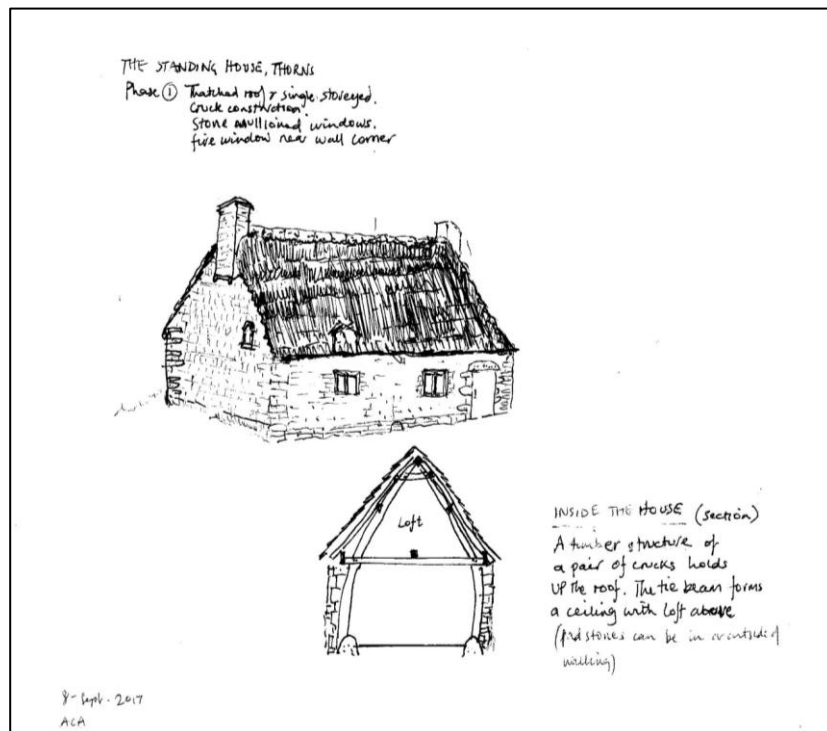


Fig. 15.8 An impression of Thorns 1 in its sixteenth-century phase of occupation (Alison Armstrong)



Fig. 15.9 An impression of Thorns 1 in its final phase of occupation in the mid-nineteenth century (artwork © Dominic Andrews based on a sketch by Alison Armstrong)

Thorns 2 – building by Trackway no. 6

This building standing alongside Trackway No. 6, connecting the packhorse bridge and the settlement of Thorns, retains some of its secrets owing to the sheer quantity of demolition rubble within it. Given the degree of past disturbance in the eastern two-thirds of the structure, full excavation was not a realistic option here.

Four small trenches in the western section did produce meaningful results and excavation proved that it had been a shippon – housing for cattle – running from the front (south) wall to the rear (north) wall of the small outshut. The floor had entirely been made up of cobbles (see Figure 12.4) and the walls were well constructed with lime mortar (see Figure 12.7). It was entered through a wide doorway in the south-west corner of the building (see Figure 12.10).

Excavation also confirmed that the shippon was a later addition to an existing building: the end section with the outshut was not contemporary with the rest of the masonry. Selective clearance of rubble showed that there had been an internal dividing wall in the interior of the building: whether this was the original west gable which later became the dividing wall between main building and shippon or a wall dividing two bays within the original building could not be determined. The straight joint adjacent to the massive vertically-set sandstone slab (S) and the break in the line of the plinth (PI) in the original building's frontage (see Figure 12.11) suggest the original building was significantly older than the shippon end. Fig. 15.10 shows the measured dimensions of this building made possible during excavation.

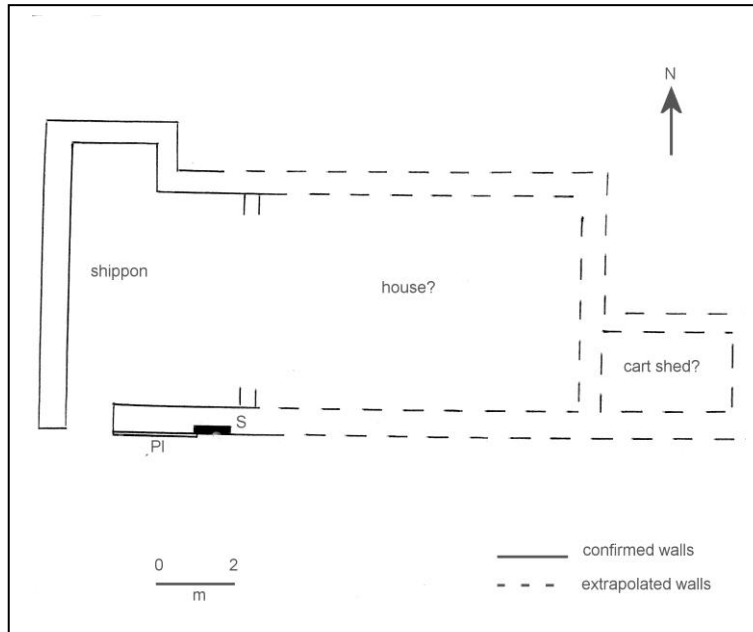


Fig. 15.10 Final scale plan of Thorns 2

The total external length of the building, with all its bays, is 17.8m; external width at the shippon end is 7.55m and 6.5m elsewhere.

First Edition mapping, surveyed in 1846-48, offers a clue to what function this building originally served. It is depicted as a rectangular (roofed) building with two outshuts – one at the rear and one at the front. There is no ground evidence whatsoever of one at the front and the one at the rear shows it placed centrally along the rear wall whereas it actually sits in the north-west corner. Nevertheless, early OS mapping of buildings tended to an extent to be symbolic and representative of function rather than accurate in every detail. Thus, the mapping points to the building having originally been a domestic house with a shippon added later. What the mapping does not inform is what use the house had at the time of the survey – it is quite possible it was by then no longer residential but turned over to agricultural purposes as the settlement was gradually contracting in population. Only total excavation could resolve this issue and that is not logistically feasible. Of particular interest is part of the front wall which retains some good coursed stonework and plinths. Such features are seen in High Flat Barn and Thorns 1 and appear to be from earlier work.

Excavation raised a number of issues that were not resolved. Firstly, the cobbled nature of the outshut floor strongly points to its having been a shippon but what could not be determined is why it has two distinctly different forms and alignments of cobbled surfaces.⁷² Secondly, shippons almost without exception have a hard-surfaced channel – the *groop* – along which liquid waste from standing cattle was swept out of the building. Solid waste was invariably forked out of the shippon on to an external *midden* through the *mucking-out hole*. Any sign of that disappeared here when the building's walls were demolished to a particular level; there should still be evidence of the *groop*, though, but it is lacking. Furthermore, it is unlikely that liquid waste would simply have been swept out through the shippon door directly on to the main trackway entering Thorns from the west which passes alongside the building's frontage.

⁷² Note. A variety of cobbled floors were seen during surveying in Kilnsey at Renard Close Laithe.

Thorns 3 – earthwork of ruinous house behind Thorns 1

Prior to ground surveying and excavation, this structure was visible in winter months as an elongated earthwork, though more of an uneven rubble spread than an actual earthwork (Fig. 15.11). During summer months it is effectively masked by nettle infestation (Fig. 15.12).



Fig. 15.11 Thorns 3 photographed in early spring 1995, looking north-east (David Johnson)



Fig. 15.12 Thorns 3 photographed in summer 2014, looking towards the privy (David Johnson)

Excavation enabled precise measurements and dimensions to be obtained which, in turn, made possible comparison with Thorns 1 (Table 15.1).

Table 15.1 Comparative dimensions, Thorns 1 and Thorns 3

House	External length (m)	External width (m)	Bodystead area (m ²)	Parlour area (m ²)	Dairy area (m ²)
Thorns 1	10.00	6.35	19.25	18.75	8.50
Thorns 3	10.45	5.70	19.55	16.35	12.25

Thus, Thorns 1 and 3 are, to all intents and purposes, the same length when outbuildings are excluded, though Thorns 1's two outbuildings make the overall structure longer; Thorns 1 is slightly but not significantly wider. The area of the two bodysteads is remarkably

convergent though Thorns 1 has a larger parlour, while Thorns 3 has a significantly larger rear outshut dairy. Fig. 15.13 is a scale plan drawn up on completion of excavation.

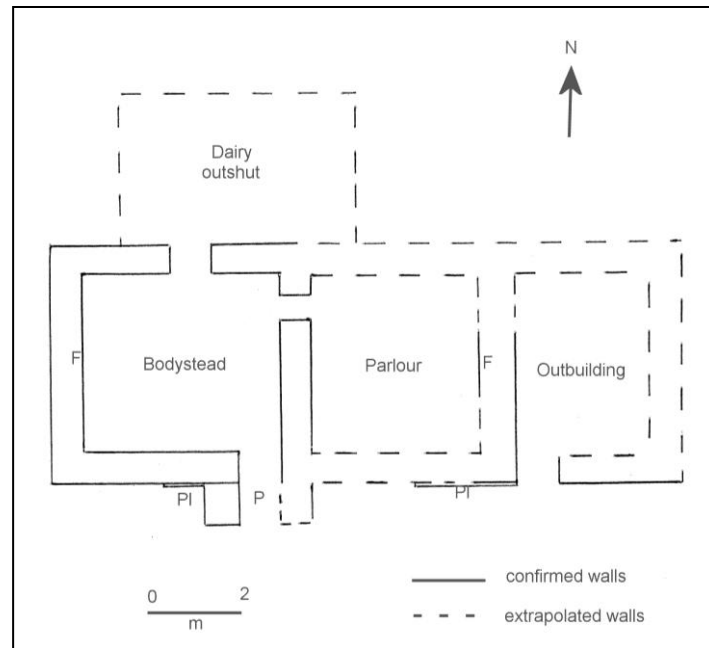


Fig. 15.13 Final scale plan of Thorns 3, a direct entry plan house with gable stacks and added rear dairy

This structure was proven beyond doubt to have been a two-bay domestic house with added rear dairy and an integral east outbuilding with a separate entry point. The arrangement of bodystead and parlour here was opposite to that in Thorns 1 though there is no apparent reason for this. The bodystead was entered through a doorway, with added porch (P), set in the south-east corner of the room which retains traces of its original flagged floor. Set into the west gable was a two-phase fireplace (F). The earlier phase was a large open fireplace, possibly originally with a firehood, with a corbelled and slated bread oven built into the southern end (Fig. 15.14).



Fig. 15.14 The early-phase fireplace with the inserted eighteenth-century bread oven at the far end. The later curving fireplace is also seen (Chris Bonsall)

At some point the oven was blocked off and the fireplace was reduced in size and given a curvilinear rather than rectilinear shape. The wrought-iron fire basket was found *in situ* and in sound condition during excavation (see Figure 12.17).

At the rear of the bodystead a door gave access to the outshut dairy and in the north-east corner a second door gave access to the parlour. This, too, had remains of a flagged floor and a fireplace (F) set into the east gable wall complete with part of the small cast-iron range (see Figure 12.13).

One can readily paint a picture of what the house interior would have been like in its heyday. The bodystead was the room where daily life was centred. It was always warm with the large open fire never allowed to go out and a stack of peat bricks at hand, though it would have been smokey. The room was filled with the smells of food slowly cooking in the large cast-iron cauldron that hung from the iron reckoncrook, or from bread in the oven. It was as often as not filled with the chatter of adults, the noise of children and dogs with a cat purring by the fire; clothes would have been hanging above to dry from the accumulated warmth. The flagged floor would have been kept scrupulously clean and the room was sparsely but functionally furnished – a chair or two, three-legged stools, a table, a dresser and maybe a settle next to the fireplace. It was here that the family gathered for meals and, in the evenings, where visitors were entertained, where business was done: it was the living soul of the household.

The parlour, on the other hand, was a very different room. When the house was single-storey, the tenant and his wife would have slept here, and it was kept for special occasions with the best furniture and their prized possessions. Upstairs, in the loft when it was single-storey or in one of the upstairs chambers when the house was heightened, the children and house servants had their sleeping quarters and this space was invariably also used for general storage. Any warmth here filtered up from the bodystead below.

In the rear dairy, with its floor set lower than in the house itself, food was kept chilled on stone slabs, along with however much cheese and butter was made here to sell at the regular markets at nearby Gearstones, or kept for family consumption. Hams would have been hung to cure to see the family through the winter, and eggs carefully stored – often in ceramic vessels filled with lime as a preservative.

The outbuilding, with a floor 300mm lower than that in the house, has a cobbled surface and a broad door in the front wall. As it was within a walled garden it cannot have been a cart shed or even a stable, but was most likely used for storage of tools, food, dried peat, sacks and the general possessions that are often listed in probate inventories (see Chapter 14). Around the west side and front of the house were gardens and an orchard and set away from the house, visible now only as a masonry signature in the wall bounding Trackway no. 6 and as a low mound, was a small square building – this could have been a piggery or even a hennery-piggery with pigs on the ground floor and hens above.

Wall thicknesses throughout are 700mm and this applies to the outbuilding as much as to the dairy and the house itself so they were probably all built at more or less the same time. The fact that these walls are broader than those in Thorns 1, 2 and 13 can be taken as evidence that this building has the earliest origins. Like Thorns 1 and 2, it also has a clear plinth (Pl on Figure 15.13) along the front edge of both house and outbuilding.

Fig. 15.15 is an artist's impression of how Thorns 3 would have looked in its final phase of occupation.



Fig. 15.15 An impression of Thorns 3 in its final phase of occupation in the mid nineteenth century (artwork © Dominic Andrews based on a sketch by Alison Armstrong)

Thorns 13 – earthwork adjacent to the wash-house

Though the trench opened over this earthwork was only 5m² in size, an impressive amount of detail was gleaned from it. It was not included in the Vernacular Buildings survey (see Chapter 10) because the earthwork was so vague (Fig. 15.16) and only one stone block protruded above the turf prior to excavation so there was nothing visible to support the contention that it had been a building. Having said that, the way in which the specific spot was depicted on First Edition OS mapping, surveyed in 1846-48, allowed a hypothesis to be put forward that it had indeed not only been a building but had been a domestic house: it was shown as a roofed L-shaped building with the long limb of the L facing south and the short limb sitting roughly where the wash-house was later erected. Furthermore, First Edition mapping used a specific form of notation for gardens and this was applied to the squared banked enclosure adjacent to the south (long) axis of the building as mapped. Gardens in the past, especially in farm situations, were not like today's lawns and flower beds, but were geared at producing vegetables and small fruit. Thus, the hypothesis formulated for excavation was that the visible stone lay at the south-east corner of the front face of the building, and that the south-facing part of the building was a house opening to a low-walled garden.



Fig. 15.16 The vague earthwork of Thorns 13, against the wall in the background, with the garden before it within a banked enclosure (David Johnson)

From the excavation evidence (see Chapter 12, Section 3), it can be confirmed beyond doubt that the trench contained the south-east corner of a house with well-built and strongly-mortared walls with surviving evidence of lime plaster and orange-coloured limewash; it had a slate floor; the south wall within the trench contained a window with an eighteenth-century stone mullion (Fig. 15.17); and it had been roofed with flagstone rather than grey slate. On the basis of all this, and from earthwork evidence, it can be asserted with a high degree of confidence that there was a door to the west of the proven window and a second window beyond that, enabling a picture of a symmetrical house to be imagined, built in the eighteenth century (Fig. 15.18). The relative narrowness of the east gable and front (south) wall – 550-600mm – adds weight to the idea that it was of this period. It can be taken as a given that the banked enclosure was a garden surrounded by stone walls as probing along the banks located buried stone that was not apparent to either side, and there is a considerable depth of fine silt within the enclosure. It can be assumed, with some confidence, that the western end of the long limb, and the north-south short limb were agricultural bays attached to form one long building. If the entire structure had been agricultural, the floor would have been cobbled rather than slated; while the quantity of pottery and window glass from the trench strongly points to domestic use.



Fig. 15.17 Part of an eighteenth-century window jamb, 200mm scale (Chris Bonsall)



Fig. 15.18 The south (front) wall of the house showing as a parchmark in the drought of summer 2018 (David Johnson)

Thorns 7 – High Flat Barn

This was marked on 1846-48 mapping as a ruinous barn though it cannot now be said how much of the building still stood at that time. Excavation and detailed measurements of its elements have enabled the team to build up a partial picture of how it may have looked. Prior to excavation, vague earthwork banks hinted at the position of the west gable and thus at its full length, and an even vaguer earthwork suggested the line of the south elevation wall, but there was no indication of where doorways might have been. The partly-surviving north wall (1.75m maximum height now) and east gable wall (1.4m high) both have double plinths and broad walls but there was no means of knowing if the other two (lost) walls were of similar build. From the two small trenches laid at opposite corners of the overall earthwork, this has all changed.

Excavation has proved that the building was 10.75m long internally by 4.9m wide making it the longest but not the widest of all the Thorns barns, excluding the bank barn (Table 15.2).

Widths of surviving walls in High Flat Barn are 750mm for the east gable and 880mm for the north wall, in both cases including the stepped stone plinths; if the plinths are taken out of the equation, widths reduce to 600-700mm. The south elevation wall and west gable walls were exposed by excavation and found to be 700 and 460mm respectively though, if the foundation slabs are taken into account and assuming there would have been a plinth here too, which is most likely, the overall width of the west gable wall was up to 1.2m. The south-west corner retains its foundation (sandstone) slab which measured 700mm along the gable wall by 390 mm in the southwall; adding this to the other huge sandstone slabs in the gable wall, this wall can only be described as massive, suggesting, as thought prior to excavation, that this was possibly one of the oldest surviving buildings on the Thorns estate.

Table 15.2 Comparative internal dimensions of Thorns barns

Barn no. Thorns	Barn name	Length (m)	Width (m)	Wall width (mm)
4	Holme	10.5	5 ¹	700+
5	Gillheads	7.5	5.5 ²	-
6	Low Flat	6.5	4.5	550-600
7	High Flat	10.75	4.9	600-700
8	Back Hools	9.75	7.5	600
9	cart-arch	8.5	5 ³	600-630
10	bank barn	15	6	550-600

¹ excluding the later L-shaped addition

² excluding the later outshut

³ excluding the later cart shed addition

It immediately became apparent during excavation of Trench 12 that the building was not true in plan – the north-east corner is far from being a right-angle. The whole structure is skewed which is another indicator that this was an early and probably cruck-framed building, though this corner showed no evidence of a surviving padstone.

The totally-limestone masonry in the walls (apart from the foundation slabs), the presence of a double plinth, the skewed ground plan and the width of the walls all point to its having been in existence in the sixteenth century in which case it would have been thatched. The well-made, large blocky nature of the masonry that survives in the lower part of the east gable wall is even suggestive of a medieval provenance. The presence here of a large black-limestone slab set vertically in the east gable wall – visible from the settlement and the main route through Thorns (Trackway no. 1) – mirrors the presence of a similar slab, also facing the main trackway, in the house/shippon (Thorns 2), which also has a clear plinth and is of limestone build, begging the obvious question were these two structures coeval?

Excavation in Trench 13 showed that the floor was made up of relatively thin flagstone slabs set into a lime-mortar base. Though the floor had gone from Trench 12, an identical lime mortar layer was extant, and at the same depth below the ground and of the same thickness, strongly suggesting the entire building had been flagged. If this had been a barn and/or shippon from the outset, one would expect to find a cobbled floor. Cobbles prevented cattle from slipping and harming themselves whereas a smooth flat flagged floor would surely have been potentially hazardous to livestock. Conversely, cobbles would not normally be found in a domestic structure. This raises the matter of High Flat's original function – it is not too fanciful to envisage an early (cruck-framed and thatched, and possibly late monastic) building being given up as a house and converted to a barn as Thorns began to shrink in size after the seventeenth century. This could also account for it being the longest of all the barns at Thorns.

High Flat compares well with the other houses at Thorns (Table 15.3).

Table 15.3 Comparative external dimensions of houses at Thorns

Building	External length (m)	External width (m)
Thorns 1	10.00	6.35
Thorns 2	17.80	6.50
Thorns 3	10.45	5.70
Wife Park	8.40	5.50
High Flat	12.00	6.00

In length it is very close to Thorns 1 (the part-standing house) and 3 (the house under the sycamore trees) and in width very close to Thorns 1, 2 (the house by the trackway) and 3, comparisons which also point towards High Flat perhaps having once been residential.

Thus, despite the fact that three of the buildings had essentially been comprehensively demolished and Thorns 1 has slowly decayed and collapsed over the past century or so, it has been possible through excavation, detailed surveying and archival research to mentally reconstruct the houses, in their different phases of occupation, and to bring them back to life – to put people back into Thorns.

2. Geophysics

The geophysical surveys (see Chapter 11) advised that the various bipolar signals may have resulted from picking up stray ferrous (iron) objects; a number of such signals were recorded in all three surveyed areas. It also implied that the potential linear magnetic anomalies picked up in Area 2 – the paddock next to the wash-house – may have had no archaeological significance. In many cases this nuanced approach proved correct. In Site 1 (around building Thorns 2) and Site 3 (between houses Thorns 1 and Thorns 3) only modern iron objects were present at the hot spots that were examined. In Area 2, on the other hand, a whole range of nineteenth-century pony and cart iron furniture was exposed during the excavation of this building. Geophysics also picked up the two cast-iron fireplaces.

In short, the geophysical surveys proved worthwhile.

3. People at Thorns

From the earliest detailed records – the monastic rental of 1536-38 – certain family names occur and re-occur, with variable forms of spelling: Weatherhead, Procter, Eglin, Sedgwick, Battersby, Bentham and Howson dominated the earlier centuries; with Lister, Fothergill, King and Redmayne prominent later on. The number of undertenants living at Thorns, as opposed to absentee customary tenants, has varied through time (Table 15.4).

Table 15.4 Number of undertenants at Thorns, 1536-1891

Year	No. of known undertenants
1536-39	6
1683	5
1700-45	4
1756	2
1770s	4
1785-95	4
1810-20	4
1834	2
1841	3
1851	2
1861-81	1
1891	0

Some names occur in the record only once. From baptismal registers there are Sayers (1626), Wilkinson (1738), Green (1747) and Bradley (1761); from burial registers examples include Calvert (1613), Burton (1620), Hesleden (1622), Leake (1662) and Jackson (1713). It is probable that these were seasonally-hired men, labourers or live-in farm servants rather than undertenants.

This moves us on to considering the issue of social status among those directly involved with Thorns. It is clear there were four layers in the hierarchy: the various lords of the manor; the usually-absentee customary tenants, and then landowners once the manor court system fell into abeyance; the undertenants (or sub-tenants), those who lived there and worked the land at Thorns; and at the bottom the temporary, often itinerant, men who moved around or were hired for the season, for example for hay timing, the live-in farm labourers and domestic/farm servants who were normally girls or young women. Of those whose occupations were recorded in parish registers, 75 per cent were described as farmer; only four were called yeoman and only four as husbandman. Technically a yeoman was higher up the social ladder than a husbandman and, it should follow, would have occupied a larger holding, have had more livestock and a greater level of monetary wealth. Probate records, however, do not always show this. Three examples illustrate this point. James Sidgeswicke (1710) was described as a yeoman but left only five cattle and no sheep; Peter Moore (1729) had one cow and forty sheep but seven times more cash than Sidgeswicke but was described as a husbandman; Richard Peacock (1753) had seven cows and forty-six sheep and twice the cash of Sidgeswicke – he, too, was a husbandman.

As the eighteenth century progressed there was a move across all regions to replace the descriptors 'husbandman' and 'yeoman' with the generic term 'farmer' but the evidence from Thorns does not fully back that up either.

Burial records, within the limits of their completeness, point up how harsh life could be in remote farming settlements and how tragedy chose to strike: three family examples illustrate this graphically. Within one eight-year period the Peacocks lost three family members: James (labourer) in 1745, John son of Joseph (farmer) in 1752, and Richard (yeoman, he of the inventory) in 1753. In the last decade of that century the Cragg family was hit hard. John Cragg (farmer) lost his son James in 1792, another son (John) in 1793, his wife Sarah in 1793, while (his brother?) Edmond lost his son John in 1795. In the 1820s the Lister family

lost members of two generations: two children, Rose aged seventeen in 1820, John aged thirteen in 1824; and both paternal grandparents, Rose aged 75 in 1825 and her 83-year old husband Anthony the following year.

On the other hand the proverbial stork was very generous in providing Robert and Ellen Fothergill with offspring. Between 1826 and 1846 they had no less than twelve children with long-suffering Ellen pregnant for half the months in that period. Parish records and the censuses for 1841 and 1851 do not agree in terms of name spellings and dates of birth, but Ellen was only in her very early twenties when she first became with child.

Three probate inventories provide some clues about the houses at Thorns: Peter Moore's (1729), Richard Eglin's (1731) and James Procter's (1742). Moore and Eglin were clearly both living at Thorns at the same time. Moore's inventory refers to the bodystead and the parlour – thus two living rooms downstairs – and a chamber above each. Eglin's also mentions the two downstairs rooms (bodystead and parlour) and a loft over each. Use of the term 'chamber' means Moore lived in a house which had two full storeys whereas 'loft' means that Eglin's had one or one-and-a-half storeys. Procter's had two full storeys. Baptismal records show that John Lawson and family lived at Thorns at least between 1729 and 1732, and he was a husbandman; in 1744 Thomas Metcalfe (husbandman) and family also lived there, the Peacocks were resident at Thorns in 1750-52, and the Battersbys (farmer) in 1751, so in this twenty-year period seven families are recorded living there.

The omission in parish records of place of residence from 1673-1712 leaves an unfortunate gap but we can speculate with a good degree of probability that the situation in the first half of the eighteenth century was as follows:

Battersby (1624, 1664, 1667, 1738, 1744, 1751, 1753, 1766, 1777) – this family endured at Thorns for a very long period of time

Procter (1643, 1681, 1742, 1772, 1780, 1782-84) – they also lived here for a lengthy period

Moore (1623, 1729, 1737) – equally so

Eglin (1731) – possibly shortlived; he was a clothier so may have lodged with another family.

Lawson (1729, 1732)

Metcalfe (1744, 1746, 1752, 1761, 1766-67, 1769, 1771, 1807) – they also endured for a long period but do not appear before 1744

Peacock (1745, 1750, 1752, 1753) – they also do not appear before 1745.

From these dates, we can group the Battersby, Procter, Moore and Lawson families all living at Thorns in the early decades of the eighteenth century: four households. Then the Moore and Lawson families moved on to leave, by mid century, the Battersby, Procter, Metcalfe and Atkinson families in residence as farmers (still four households); and by 1775 or so it is the names Baines, Cragg, Grisedale and Atkinson; with Fothergill, Lister, Mitton and Swinbank moving in around 1800: still four households.

Logic would suggest that the settlement of Thorns consisted of four discrete houses through this combined period. From field surveying and excavation we know that Thorns 1, Thorns 3 and Thorns 13 were definitely houses and there is a strong likelihood that Thorns 2 was also (at least originally) a house, so this gives us the four houses. We can take this further by suggesting that Peter Moore (1729, inventory – two ‘chambers above’) lived in Thorns 3 and that Richard Eglin (1731, inventory – two ‘lofts above’) lived in Thorns 1 or Thorns 13: the project has proved that Thorns 1, until 1836-37, was not a two-storey house but there is insufficient evidence to draw any conclusion in this respect for Thorns 13, though the archaeological evidence suggests that this house was not built until the eighteenth century. James Procter (1742, inventory – two ‘chambers above’) also probably lived in Thorns 3. We will consider who lived where after 1800 in Section 4 but, first, historical OS mapping sheds light on how the houses and their surroundings looked when Thorns was an occupied settlement. Fig. 15.19 is an extract from First Edition six-inch mapping, surveyed in 1846-48.

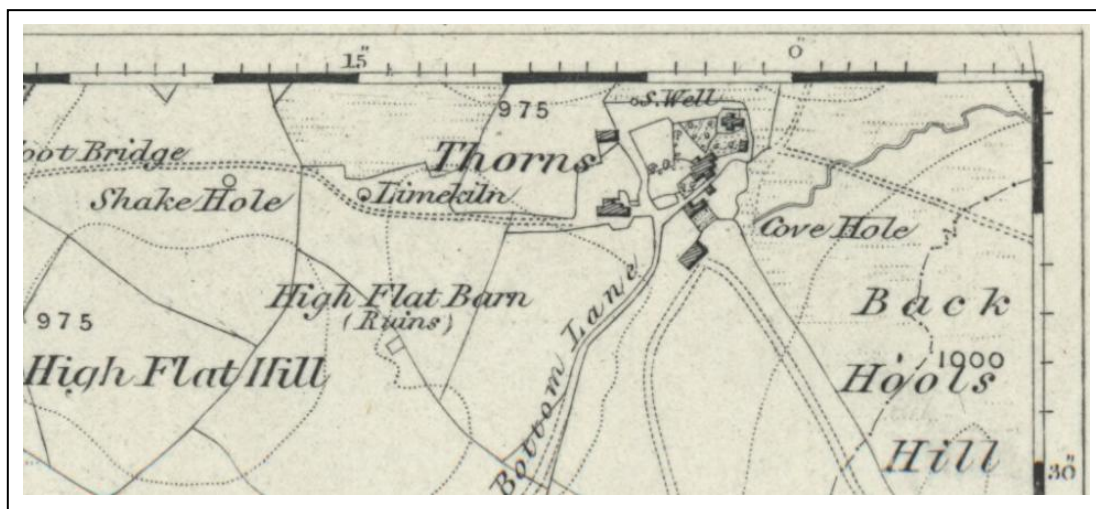


Fig. 15.19 First Edition OS map extract for Thorns settlement, 1846-48 (Sheet 97)

The cart-arch barn, or former hogghouse (Thorns 9) was marked just above the ‘s’ of Thorns, the bank barn (Thorns 10) was marked at the junction of two trackways (nos. 3 and 4) coming from the south, and High Flat Barn was shown as already ruinous. The part-standing house (Thorns 1) is seen on the south side of the small paddock though the exact way it was depicted does not conform to what is seen on the ground, though the rear dairy outshut and front porch were symbolically marked. At the north-east corner of the paddock is the house coded Thorns 3 which was also shown with a rear dairy and a front porch which are more accurately placed than for Thorns 1. In the south-east corner is a small building, of which a small part of the south wall is still visible in Wall no. 27. Within the paddock next to the wash-house there is a long L-shaped building – Thorns 13 – and another small building marked now by a grass-covered mound. Thorns 2, which was also excavated, was shown with two rear extensions and a possible cart shed on the east end. The two extensions are not seen on the ground but the cart shed is: the way it was depicted lends weight to the hypothesis that this was originally a house and attached shippon. All the buildings except High Flat Barn are marked in solid fill which means they were roofed: however, it does not necessarily mean they were still in use. The privy (Thorns 11b) was not there in 1846-48.

OS mapping employed a series of conventional symbols to depict different ground features and the 1846-48 map highlights the nature of the two paddocks containing Thorns 1, 3 and

13. The larger paddock was divided up into a series of small parcels and the shadow of the boundaries can still be seen as low stone-cored banks: the parcels were bounded by (narrow and therefore probably low) dry-stone walls. A trackway ran south-north to the hoghouse and communal well from the centre of Thorns – this, too, can still be made out on the ground as a faint linear feature. Another (still visible) trackway ran up the eastern side of the paddock between Thorns 1 and 3. The map marks two lines of mature deciduous trees, one running south-north and the other east-west. These sycamores are still there. Two parcels, both triangular in shape, separate the two houses and both have the symbols that depicted gardens and orchards so one can imagine this now-grassed paddock as a rich source of fruit and vegetables, with probably a more formal small garden in front and south-west of Thorns 1. In the wash-house paddock – and we now know it was a house – the front of the building has a squared area also bounded by low walls, also still visible as linear ‘lumps’. This, too, was a garden.

The Second Edition six-inch OS map, surveyed in 1893, shows a very different situation. Thorns 1 was still standing, Thorns 2 was in ruins, but Thorns 3 had gone and Thorns 13 had been demolished and replaced by the wash-house (Fig. 15.20). All sign of the gardens, orchards and the two small buildings had been swept away, but the well was clearly still extant and the lime kiln still complete – if it had been out of use or derelict it would have been marked ‘Disused’ as was the OS convention. Given such major changes in less than fifty years, it is possible that even in 1846-48 some of the buildings, though still roofed, were already redundant. The fact that Thorns 1 was still shown as roofed confirms this was the last house to be lived in.

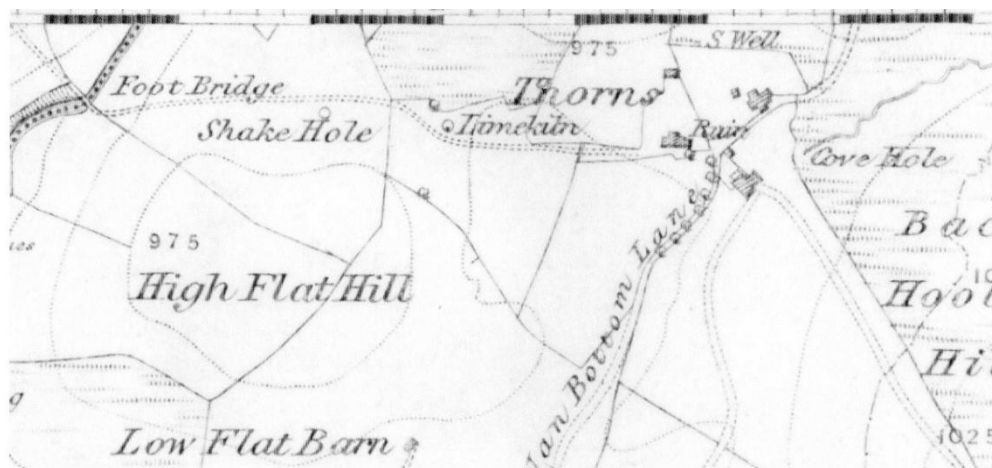


Fig. 15.20 Second Edition OS map extract for Thorns settlement, 1893 (Sheet 97)

The next edition (in 1907) was slightly contradictory, not showing Thorns 2 as a ruin but as a building, and omitting the privy (11b) and lime kiln.

4. Battersby's and Redmayne's on the ground

From the eighteenth century the two main tenements at Thorns were colloquially known as Battersby's and Redmayne's after past customary tenants. Known facts are that the family name Battersby first appeared in 1624 and that of Redmayne in 1780 (see Chapter 14); in 1782 Battersby sold out to James Lister of Gearstones, who also came to own Redmayne's, later bequeathing this to his son James and Battersby's to his son William, along with Gearstones, actions which have made it extremely difficult to distinguish between the two tenements. In 1824 the Farrers bought Redmayne's 41-acre (16.6ha) tenement from Lister, for payment of £1000, and by 1837 it was sub-tenanted by the Fothergills, yet in 1851 Robert Fothergill farmed just 20 acres (8ha). The 1824 conveyance crucially gives the measurement of 38 perches for the orchard and garden attached to Redmayne's tenement, along with two meadows. Battersby's holding, according to the agreement of 1742, contained three enclosures totalling only 4 acres (1.6ha). In 1742 this attracted an annual rent of 2s 4d whereas in 1781 Redmayne's amounted to £1 6s 2³/₄d, which discrepancies fit well with the size of the two holdings.

The critical point to make in attempting to pin down which was which on the ground should be the orchard and garden. According to 1846-48 mapping, there were gardens at Thorns 1 and 3, and at Thorns 13 but unlike the others the latter had no orchard. Even if Thorns 13 had an orchard that had been completely grubbed up by 1851, the 38 perches (or 961m²) do not fit as the Thorns 13 garden earthwork is c. 150m² or just less than 6 perches. However, the combined gardens and orchards for Thorns 1 and 3 are roughly 950m² which equates to almost 38 perches.

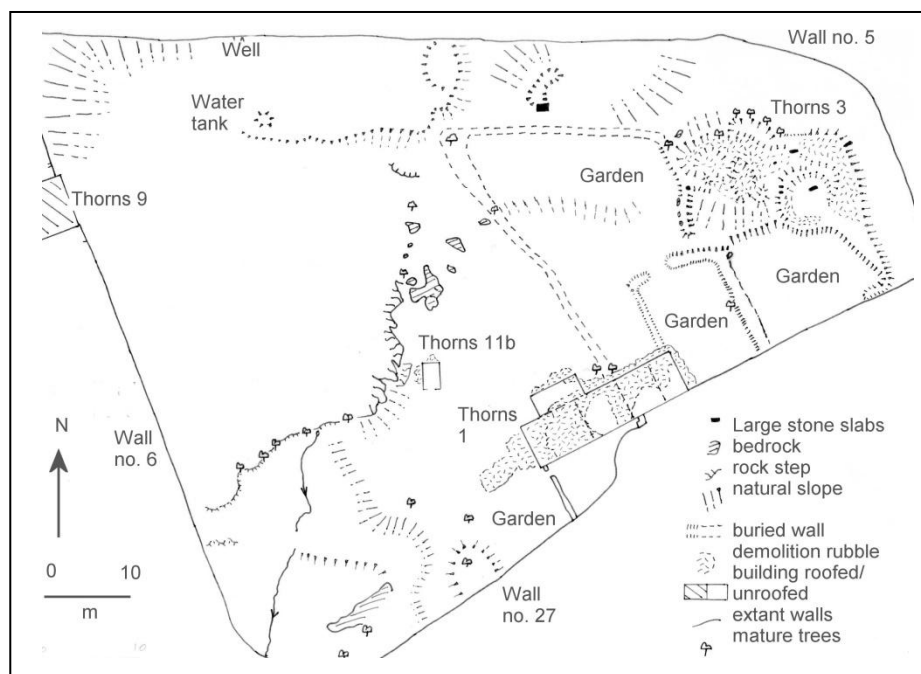


Fig. 15.21 Scale plan of Redmayne's core tenement

In summary, we can say with confidence that Redmayne's tenement equates to Thorns 1 and 3 (Fig. 15.21 and see Figures 15.9 and 15.11-15) combined and that Battersby's equates to Thorns 13 (Fig. 15.22 and see Figure 15.16).

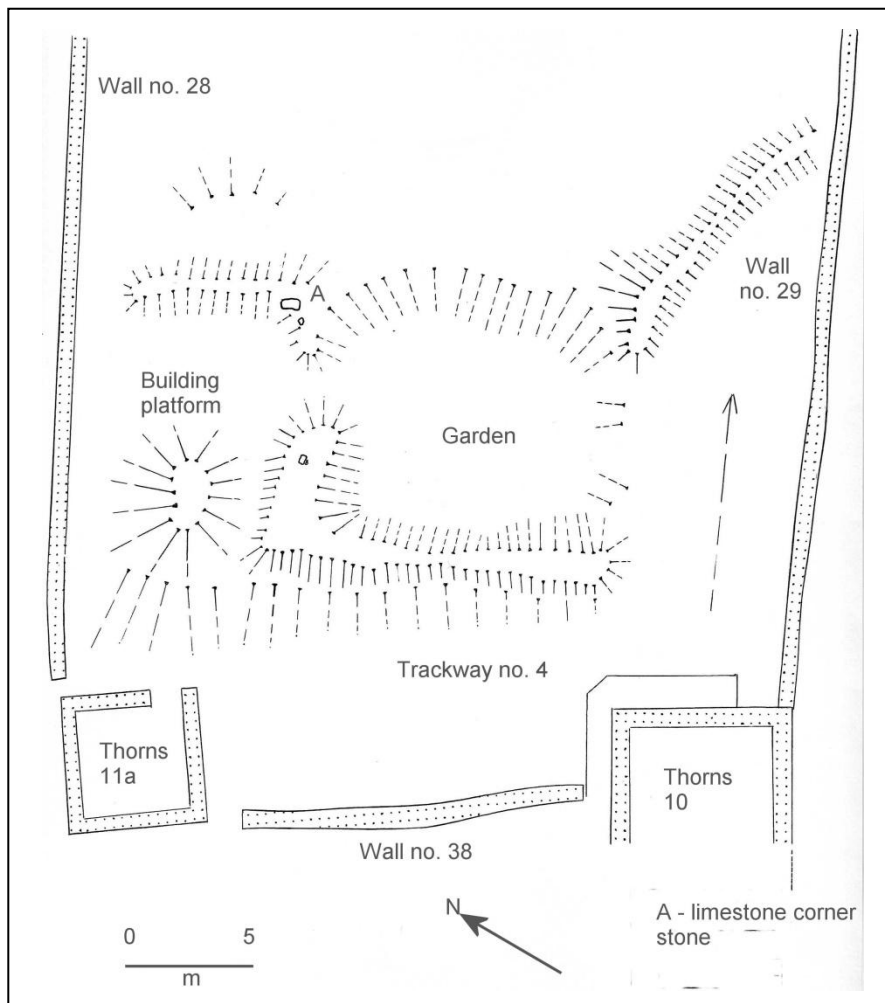


Fig. 15.22 Scale plan of Battersby's core tenement.
 'Building platform' is Thorns 13

5. Decline and Abandonment

No settlement nucleation exists or can survive in isolation and when the factors that made a settlement viable are removed it has no long-term future – it is doomed to fade away and die. This is what happened at Thorns. It was not a sudden change in circumstances, not one dramatic episode that sounded its death knell as a habitation, rather an accumulation of happenings that chipped away at its viability. Inevitably, there comes a point when the critical balance is tipped the wrong way and abandonment is the inexorable outcome. Thorns was killed off by a range of factors that can be traced back to the early decades of the nineteenth century, though the reality that it had been owned by absentee landlords, with ownership changing hands so frequently, for over a century prior to that did not bode well for its future. Some factors were beyond human control, others were the direct result of human intervention locally and nationally. The first real blow had its genesis in 1815 though it was at least another ten years before the real impacts of that year's 'breaking-news' events began to really hit hard in upland Britain.

During the twenty-five or so years of the French Wars farming boomed across the country and this persuaded many landowners to invest in their estates and farmers to take up or renew vacant tenancies as the 'dig for survival' mentality of wartime guaranteed them a good market price. Peace in 1815, as with all wars coming to an end, had the opposite effect, with many thousand soldiers thrown onto the streets, cheap imports flooding in and rapid onset of recession in farming. Nature intervened to add to farmers' woes with the eruption of the volcano Tambora, in Indonesia, in 1815 bringing about 'the year without summer' in 1816 and unusually cold spells in 1816-17 prolonging that particular misery. There was widespread harvest failure, affecting hay crops, repeated outbreaks of cattle murrain and even a serious outbreak of foot and mouth disease in sheep. Distress among the farming community was an inevitable consequence and government set up commissions in 1820, 1822, 1833 and 1836 to look into the causes and seek solutions. One effect of all these problems was that many tenants gave up their tenancies as they could not make enough to pay annual rents; in turn, landowners found it very difficult to find men prepared to take on vacant tenements. It is because of this that some of Upper Ribblesdale's marginal farms were given up, never to be reoccupied.

Towards the end of the century nature exerted its authority again. Exceptionally wet summers were recorded in 1872 and through 1877-79, with colder than normal winters in 1878-79 and the 'Great Snow' of 1880. Once again livestock farmers were hit by murrain, foot and mouth and pleuro-pneumonia in cattle, and further economic depression. Though it was not a universal picture of doom and gloom, many landowners and tenants gave up and those marginal farms that had managed to struggle through the earlier troubles finally succumbed and were abandoned from the 1870s onwards – Thorns fell into this category.

Added to all these factors were infrastructural and economic ones. Gearstones had held fairs for cattle driven down from Scotland since the mid-eighteenth century, and a monthly Wednesday market for oatmeal and corn brought over from Wensleydale but, even by the 1860s, the latter was becoming nothing more than a 'ghost of a fair or market' (Dobson 1864, 15). The cattle fairs died out by 1872 but the markets struggled on for another twenty years. The old roads down Ribblesdale – through Thorns and Nether Lodge and from Cam to High Birkwith – gradually went out of use when the present main road was built, so farms like Thorns, Syke, Dry Lade and Greenhaw became increasingly isolated. The coming of the Settle-Carlisle railway in the 1870s was another nail in Thorns' coffin.

OUTPUTS AND OUTCOMES



Fig. 16.1 Dales YAC members at work excavating the front doorway and porch of the demolished house, Thorns 3 (David Johnson)

Contents

1. Beneficiaries
2. Key messages
3. Dissemination of results
4. Outputs
5. Outcomes
6. Legacy
7. Appendix

1. Beneficiaries

There is no doubt that volunteers involved in the various elements of fieldwork at Thorns learnt and/or developed new transferable skills: members of the local Ingleborough Archaeology Group took part in tasks that they had not been exposed to before, such as recording vernacular buildings or profiling dry-stone walls, as did members of the Skipton-based Upper Wharfedale Heritage Group, and members of the general public, for many of whom this was their first exposure to practical archaeology. The data break down as follows:

Surveying tasks

Experienced in tasks each volunteered for 11

Not experienced in tasks they volunteered for, therefore learned new skills 55

Excavation

Experienced in excavation 19

No prior experience, therefore learned new skills 27

Completely new to archaeology

With no prior practical experience 17

The point was raised earlier that surveying of the wall network may have been smoother and more efficient had there been more consistency in volunteer staffing (see Chapter 9.7). Nonetheless, one of the key aims of the project was to make available to volunteers 'training opportunities and a potential new experience' (see Chapter 3.1) so the policy adopted was entirely justifiable. Several volunteers, with a level of prior experience in archaeological surveying and recording, took on the role of team leader, adding to their portfolio of personal experiences. Co-ordinating team members, or being part of a team, gave all the chance to work in a group situation doing what for many of them was new.

Seven members of the Yorkshire Dales Young Archaeologists Club (YAC), accompanied by three adult leaders, spent a half day on site during the excavation phase involved in practical work on one of the demolished houses (Thorns 3), de-turfing and exposing part of the front wall and porch (Fig. 16.1).

The excavation element of the project was run in two phases: one concentrating on the core settlement; the other investigating a major ditch and bank feature between the settlement and Gayle Beck, and the scant remains of High Flat Barn to the west of the settlement.

The core settlement area of Thorns, the Back Hools Barn area and the footbridge across Thorns Gill were already *physically* accessible to the public along the network of public rights of way, so the area has long since been publicly accessible. However, the visiting (walking) public will benefit from improved *intellectual* access to the wider Thorns area, and will have access to more meaningful and informed off-site interpretation of the site which will enhance their understanding of its component parts and its fascinating history.

For educational parties and local schools the project will provide a useful and comprehensive teaching resource relevant to modern curricula in geography, history and the environmental and biological sciences. Gearstones Lodge is a self-catering establishment,

mainly occupied by visiting groups from schools and academic institutions elsewhere which engage in field courses for secondary- and tertiary-age students. The resources coming out of this project will be of especial value to teachers, lecturers and field tutors.

These resources, alongside this report, will also be of undoubted value to local researchers and academics interested in the development and success/failure of medieval and post-medieval upland rural settlements in the Central Pennines.

The project is also expected to have a long-term benefit for Thorns itself, helping ensure it is afforded the level of monitoring and conservation required to enhance, maintain and even improve its current condition. In turn, this will benefit the archaeology of the site as well as the standing buildings and walls that were consolidated as part of the H3 *Thorns through Time* project and its partner projects.

The footbridge across Gayle Beck was structurally improved in 2018 under the *Stories in Stone* Heritage Grants funding stream (D9.10) to provide for its long-term future (see Section 7). The work was undertaken by Pete Roe, specialist craft mason and builder, and involved removal of invasive tree and shrub growth, necessary and low-key repairs to the bridge surface and re-setting of several voussoirs that have slightly slipped over time, all to ensure that the structure is sound into the future (Fig. 16.2).



Fig. 16.2 Thorns Gill footbridge in 2018 undergoing structural repairs undertaken by Pete Roe, heritage builder (YDNPA HER)

Also as a knock-on effect, Back Hools Barn was the beneficiary of a grant under the *Stories in Stone* Traditional Farm Buildings grant scheme (H1.10). The entire interior was cleared of

decades of accumulated sheep muck and organic material from the almost-total nettle infestation; dangerous internal timbers were removed; the structure of the barn was fully stabilised and consolidated; several decayed lintel timbers were replaced with new oak timber; and the building was left in a state suitable for sheep to use as a shelter from the wind, and for passing walkers on the adjacent public right of way to enter to view the interior of a traditional field barn – all in perfect safety. Prohibitive costs precluded replacing the roof.



Fig. 16.3 Back Hools Barn cleaned out and conserved for the future (David Johnson)

2. Key Messages

The primary message of the project can be summarised as stressing that conserving heritage sites for the benefit of the public is a complex process that involves many strands: site investigation, surveying and recording, physical conservation, and interpretation of archaeological sites. The research and recording elements provided direct training opportunities for local volunteers who were trained in a variety of historical and archaeological survey techniques, in addition to archaeological excavation and recording. As well as the satisfaction of gaining new skills and contributing to the greater understanding of their local history, this training will undoubtedly help those volunteers who choose to take part in future archaeological projects elsewhere.

Thorns through Time has been able to bring about a varied programme of practical activities all of which can be shown to have wide-reaching public benefit. The results of the investigations are being made available through a range of media forms, such as hard copy and online publications, a blog, traditional and social media, and off-site interpretation. This means that the public benefit to be derived from the project's results has the potential to encompass a diverse demographic both within and without the immediate Yorkshire Dales community.

3. Dissemination of Results

A decision was taken prior to the start of the project that it would be inappropriate to commission on-site interpretation so only off-site information about the settlement was developed and made available to promote public understanding of the history of farming and land use in Upper Ribblesdale.

A media strategy was devised by the *Stories in Stone* core team to ensure dissemination of the project's progress and results, which included traditional media (eg press releases) and social media, such as the Yorkshire Dales Archaeology Facebook page. Written interpretation material, accessible to all ages, was created as part of the project, spearheaded by the *Stories in Stone* Schools Out officer, focussed on Thorns but keeping followers to public rights of way. Other digital interpretation facilities include posting the final H3 project report on the *Stories in Stone* and IAG websites.

Educational materials have been produced by the *Stories in Stone* Schools Out Officer, including activities designed to engage a variety of age groups and educational backgrounds, whilst delivering unified learning objectives and educational outputs. These materials and activities are designed to be sustainable and to require minimal supervision and maintenance. It was envisaged that these activities will continue to be for the benefit of the Yorkshire Dales YAC and local primary schools as well as educational groups visiting Gearstones Lodge. Full details of these are posted on the *Stories in Stone* website.

With the aim of long-term storage of heritage information about Thorns and its wider area, while keeping information fresh and accessible, digital and paper copies of the project report were deposited with the YDNPA HER in Bainbridge, where they are accessible to the public and professionals either in person, by appointment, or electronically. The HER is an actively maintained record subject to continual development and enhancement, managed by the YDNPA Historic Environment team. An electronic copy of the report was also sent to Natural England to enable the organisation to update its SHINE database.

The project report was also made available online to members of the public via the IAG website and the YDNPA's *Out of Oblivion* website, a project initially funded by the HLF. Each volunteer engaged in the *Thorns through Time* project, and all direct stakeholders, received a hard copy of the full report, and copies were placed in local reference library collections.

4. Outputs

The following outputs were achieved by the project:

1. A detailed record of all archaeological features – standing and buried – across the wider Thorns area was compiled following industry best practice.
2. This detailed report was produced and published in hard copy and digital formats to help inform public understanding of the site and its story, and to inform long-term management of the area taking into account farm management needs, physical and ecological conservation, and sustainable use as an educational resource.
3. The part-standing house and privy were stabilised and consolidated as part of the *Thorns through Time* project. In both cases existing fabric was stabilised with lime mortar and masonry was put back in both structures: for the privy, whatever building stone lying

adjacent to it was put back and no stone was imported as that would have compromised the structure's historical integrity (Fig. 16.4).

For the house (Thorns 1), masonry that had fallen – or been deliberately pushed off by unknown persons – in recent years was put back in position to make the frontage closer in appearance to what it had been when photographed in 2005 (Figs 16.5 and .6). Within the building the internal dividing walls between the housebody and the parlour and the parlour and the added rear dairy were cleared of fallen rubble, exposed to view and consolidated using dry-stone walling methods; both windows and the front doorway were similarly exposed to view, the positions of the fireplaces in both rooms were identified, three niches were cleared of rubble and exposed within the added dairy, and another niche as well as a flagstone bench or shelf were 'exhumed' within the front porch. The short length of low garden wall at the front of the house was also fully rebuilt.



Fig. 16.4 The privy – the 'out-office' in contemporary parlance – on completion of consolidation works (David Johnson)



Fig.16.5 The house frontage in 2003 (David Johnson)



Fig. 16.6 The house frontage after consolidation in August 2017 (David Johnson)

4. The lime kiln just west of the settlement was also stabilised and tidied up, at no cost, again only making use of stone that had fallen off the kiln in recent years (Fig. 16.7).



*Fig. 16.7 The lime kiln after stabilisation works
(David Johnson)*

5. As an indirect result of the *Thorns through Time* project 110m of ruinous dry-stone wall were restored in traditional style under the H2 *Dry Stone Walls* programme between the settlement and the lime kiln: project H2.13 incorporated 57m of Wall no. 8 and 53m of Wall no. 3 (Fig. 16.8); furthermore, H2.28 funded the rebuilding of two lengths of wall of 10m and 20m within the heart of the settlement.



Fig. 16.8 Chris Rushton, helped by Alfie and Reg, rebuilding Wall no. 3, with completed Wall no. 8 in the background (David Johnson)

In addition, a further length of 28m of Wall no. 6 was repaired or rebuilt as a gesture of goodwill towards the landowners, at no cost and on a voluntary basis (Fig. 16.9). Similarly, as High Flat Barn was being excavated the interior of the surviving north wall was stabilised and a section of the east gable and the adjoining short length of field wall were also repaired, at no cost.



Fig. 16.9 Wall rebuilt by voluntary labour (David Johnson)

6. Interpretation materials aimed at the general public were produced.

7. A total of 453 volunteer days involving 66 individuals were logged through the life of the project, and volunteers received training and practical experience in archaeological fieldwork and project management.

9. Through the life of the project 380 members of the public, other than volunteers, were engaged with in one way or another.

5. Outcomes

Planned HLF outcome	Level of achievement
1. Heritage will be better managed	The project will enable long-term site management to be improved
2. Heritage will be in better condition	Four key historical structures were consolidated and saved for the future
3. Heritage will be recorded/identified	Many new archaeological features were recorded and known ones were reinterpreted and better understood
4. People will have developed skills	Volunteers developed a range of skills in archaeology, field survey, recording, excavation, and working as a team member
5. People will have learned about heritage	Participants and the general public now have a pathway to greater understanding of the site's heritage and history
6. People will have volunteered time	66 volunteers were actively engaged in the project
7. Environmental impacts will be reduced	No more than two days in any one week, and no more than twelve people on any one day, were involved in fieldwork away from the main settlement area
8. A wide range of people will have engaged with heritage	Project results, interpretive materials, educational resources, a detailed project report and public talks were made available as accessibly as possible through a variety of media formats
9. The local area will be a better place to live, work or visit	Enhancement of local knowledge through dissemination of the project's results in the long term will help increase the sense of identity among the local community, while making it more meaningful to passing walkers

6. Legacy

The project will maintain and project a significant legacy beyond the HLF-funded *Stories in Stone* project. Results of the fieldwork and research, as disseminated via the project report and other interpretation material, will be accessible to the wider public for the foreseeable long-term future. This will ensure that there is a minimum-maintenance, long-term educational resource available for use to educate both the local community of all ages as well as visitors to the area. This fresh and reinterpreted archaeological and historical data will be available to professionals and researchers, who can help embed the results within a wider research framework for the benefit of future generations.

In order to secure on-going interpretation of the site, a plan of consolidation and restoration works was undertaken within the core settlement stabilising and consolidating the partly-standing house and the privy. In addition, the rebuilding of some ruined sections of dry-stone walling was achieved, and the lime kiln near the settlement was stabilised and preserved. This maintenance work will contribute not only to the preservation and conservation of these structures, but will also help ensure that the site is as engaging as possible for visitors. The appearance of care and longevity of the site is seen as crucial in maintaining people's long-term interest. This will be monitored long term by the YDNPA's corps of Dales Volunteers.

The YDNPA has a statutory duty to maintain monuments at risk and to monitor and advise on the integrity of archaeological sites and to make information on them available to the public through the HER. The findings of this project will enable the NPA to update its online database for the already known and the new archaeological features at Thorns.

The project's legacy will also be guaranteed through the training provided to local volunteers. Through this training the project has helped to ensure that archaeological excavation and recording skills are enhanced and maintained by members of the public, not only for the benefit of future work at this site, but also to aid in the conservation and research of other sites in the area and beyond. It will also help facilitate the dissemination of skills throughout the local volunteer archaeology community and facilitate the sharing of skills between volunteers. It is envisaged that the holistic nature of the *Thorns through Time* project will help provide a multi-dimensional and long-lasting legacy. The project's diverse set of aims and outputs means that the project has offered – and will continue to offer – much to the wider community, nurturing long-term public engagement with the site, as well as an active involvement in archaeological and historical research throughout Ribblesdale and North Craven.

7. Appendix

1. Previous stabilisation measures had been effected on Thorns Gill footbridge in the 1980s. Potential definitive map modification discussions deemed the bridge safe to be used but '... after consultation with the County Engineer and Surveyor, and advice from the Historic Buildings Council, ...' limited stabilisation work was undertaken in 1979 (NYCC.YDNP Committee 9 August 1984. 'Creation, diversion or closure of a Public Right of Way. Thorns Gill creation scheme'. Further work 'of a stop-gap nature' was carried out by the YDNP Warden Service in 1980 (NYCC. 'Footpaths at Thorns Gill, Ribblehead, Nos 1, 2, 3. Definitive Map Modification Order 1987'. Public Enquiry Wednesday, 23 November 1988, Evidence submitted by NYCC, para. 5.4.2).

2. As discussed in Chapters 6 and 10, there is a body of evidence of farmsteads in existence in the Upper Ribblehead – Chapel-le-Dale area, all of it derived from documentary sources. However, none of the known dates can be tied in to existing buildings, at Thorns or elsewhere within most of the *Stories in Stone* area. For this reason *Thorns through Time* commissioned the tree-ring dating of a set of six timber samples: unfortunately all of the samples failed.

3. Following on from this abortive attempt, a new project was set up in Year 3 under the *Stories in Stone* umbrella, namely Project H8, *Traditional farm buildings around Ingleborough: a pioneering tree-ring dating programme*, with the aim of dating at least ten traditional farm buildings with historical structural timbers.

Appendices

Appendix 17.1 Botanical Survey of Former Hay Meadows

Chloë Lumsdon⁷³

A botanical survey to establish a species list for five different fields at Thorns was carried out on 14 August 2017. The survey aimed to assess whether the fields could have been traditional hay meadows in the past. All species seen were noted and in order to provide a quick assessment of the botanical richness and to allow comparison of sites, each field was assigned a grade depending on the number of indicator species found. Indicator species were derived from a Botanical Survey of the Yorkshire Dales National Park, 1985-88 (Stewart and Drewitt, 1989; Drewitt 1991) and are highlighted in bold. A full list of indicator species is shown in Appendix 17.1A and the grading system used in Appendix 17.1B.

In addition to the methodology derived from Stewart and Drewitt (1989) a list of indicator species from the Hay Time Project, run by the Yorkshire Dales Millennium Trust in partnership with the Yorkshire Dales National Park Authority, was compared with the species found in this study. These indicator species are highlighted in yellow and are more frequent than the initial indicator species used. The list of indicator species taken from the Hay Time Project is shown in Appendix 17.1C. These species were not used in the same grading system.

Field no. 9 – Little Meadow

Little Meadow has one indicator species *Luzula campestris* and a low abundance of herbs so is Grade 3a.

Grasses

Annual Meadow-grass	<i>Poa annua</i>
Common Bent	<i>Agrostic pillaries</i>
Crested Dog's-tail	<i>Cynosaurus cristatus</i>
Perennial Rye-grass	<i>Lolium perenne</i>
Smooth Meadow-grass	<i>Poa trivialis</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Tufted Hair-grass	<i>Deschampsia cespitosa</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Total = 8	

Herbs

Common Chickweed	<i>Stellaria media</i>
Common Mouse-ear	<i>Cerastium fontanum</i>
Common sorrel	<i>Rumex acetosa</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Crosswort	<i>Cruciata laevipes</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Greater Plantain	<i>Plantago major</i>
Marsh Thistle	<i>Cirsium palustre</i>

⁷³ Chloë was a rural trainee with Natural England on the Ingleborough NNR, a post funded by *Stories in Stone*.

Meadow Buttercup

Nettle
Spear Thistle
White Clover
Yarrow

Total = 13**Ranunculus acris**

Urtica dioica
Cirsium vulgare
Trifolium repens
Achillea millefolium

Sedges and Rushes

Compact Rush *Juncus conglomerates*
Oval Sedge *Carex leporine*
Soft Rush *Juncus effuses*
Field Wood-rush spp. *Luzula campestris*

Total = 4**Field no. 8 – Lime Kiln Meadow**

Little Kiln Meadow has two indicator species *Alopecurus geniculatus* and *Luzula campestris* and a low abundance of herbs so is Grade 3a.

Grasses

Annual Meadow-grass *Poa annua*
Common Bent *Agrostic capillaris*
Crested Dog's-tail *Cynosaurus cristatus*
Fescue spp. *Festuca* spp.
Marsh Foxtail *Alopecurus geniculatus*
Perennial Rye-grass *Lolium perenne*
Smooth Meadow-grass *Poa trivialis*
Sweet Vernal-grass *Anthoxanthum odoratum*
Timothy *Phleum pratense*
Tufted Hair-grass *Deschampsia cespitosa*
Yorkshire Fog *Holcus lanatus*
Total = 11

Herbs

Common Chickweed *Stellaria media*
Common Mouse-ear *Cerastium fontanum*
Common sorrel *Rumex acetosa*
Creeping Buttercup *Ranunculus repens*
Crosswort *Cruciata laevipes*
Germander Speedwell *Veronica chamaedrys*
Greater Plantain *Plantago major*
Marsh Thistle *Cirsium palustre*
Meadow Buttercup *Ranunculus acris*
Nettle *Urtica dioica*
Spear Thistle *Cirsium vulgare*
White Clover *Trifolium repens*
Yarrow *Achillea millefolium*

Total = 13

Sedges and Rushes

Compact Rush	<i>Juncus conglomerates</i>
Heath Rush	<i>Juncus squarrosus</i>
Oval Sedge	<i>Carex leporine</i>
Soft Rush	<i>Juncus effuses</i>
Field Wood-rush spp.	<i>Luzula campestris</i>
Total = 5	

Field no. 4 – Low Malley

Low Malley has one indicator species *Luzula campestris* and a low abundance of herbs so is Grade 3a.

Grasses

Annual Meadow-grass	<i>Poa annua</i>
Common Bent	<i>Agrostis capillaris</i>
Crested Dog's-tail	<i>Cynosaurus cristatus</i>
Fescue spp.	<i>Festuca</i> spp.
Perennial Rye-grass	<i>Lolium perenne</i>
Smooth Meadow-grass	<i>Poa trivialis</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Timothy	<i>Phleum pratense</i>
Tufted Hair-grass	<i>Deschampsia cespitosa</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Total = 10	

Herbs

Common Chickweed	<i>Stellaria media</i>
Common Mouse-ear	<i>Cerastium fontanum</i>
Common sorrel	<i>Rumex acetosa</i>
Corn Mint	<i>Mentha arvensis</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Crosswort	<i>Cruciata laevipes</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Greater Plantain	<i>Plantago major</i>
Marsh Thistle	<i>Cirsium palustre</i>
Meadow Buttercup	<i>Ranunculus acris</i>
Nettle	<i>Urtica dioica</i>
Spear Thistle	<i>Cirsium vulgare</i>
Tormentil	<i>Potentilla erecta</i>
White Clover	<i>Trifolium repens</i>
Yarrow	<i>Achillea millefolium</i>
Total = 15	

Sedges and Rushes

Compact Rush	<i>Juncus conglomerates</i>
Heath Rush	<i>Juncus squarrosus</i>
Oval Sedge	<i>Carex</i>
Sharp-flowered Rush	<i>Juncus acutiflorus</i>
Soft Rush	<i>Juncus effuses</i>
Field Wood-rush spp.	<i>Luzula campestris</i>
Total = 6	

Field no. 10 – Pry

Pry Meadow has two indicator species *Ajuga reptans* and *Luzula campestris* and a low abundance of herbs so is Grade 3a. There was a slightly greater number of grasses, sedges, rushes and herbs in this field.

Grasses

Annual Meadow-grass	<i>Poa annua</i>
Quaking Grass	<i>Briza media</i>
Common Bent	<i>Agrostis capillaris</i>
Crested Dog's-tail	<i>Cynosaurus cristatus</i>
Fescue spp.	<i>Festuca</i> spp.
Mat Grass	<i>Nardus stricta</i>
Perennial Rye-grass	<i>Lolium perenne</i>
Smooth Meadow-grass	<i>Poa trivialis</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Timothy	<i>Phleum pratense</i>
Tufted Hair-grass	<i>Deschampsia cespitosa</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Total = 12	

Herbs

Bugle	<i>Ajuga reptans</i>
Common Mouse-ear	<i>Cerastium fontanum</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Hawkweed spp	<i>Hieracium</i> spp
Marsh Bedstraw	<i>Galium palustre</i>
Marsh Thistle	<i>Cirsium palustre</i>
Marsh Willowherb	<i>Epilobium palustre</i>
Meadow Buttercup	<i>Ranunculus acris</i>
Nettle	<i>Urtica dioica</i>
Spear Thistle	<i>Cirsium vulgare</i>
Tormentil	<i>Potentilla erecta</i>
White Clover	<i>Trifolium repens</i>
Yarrow	<i>Achillea millefolium</i>
Total = 14	

Sedges and Rushes

Carnation Sedge	<i>Carex panacea</i>
Common Sedge	<i>Carex nigra</i>
Compact Rush	<i>Juncus conglomerates</i>
Field Wood-rush	<i>Luzula campestris</i>
Glaucous Sedge	<i>Carex flacca</i>
Heath Rush	<i>Juncus squarrosus</i>
Jointed Rush	<i>Juncus articulatus</i>
Oval Sedge	<i>Carex leporine</i>
Sharp-flowered Rush	<i>Juncus acutiflorus</i>
Soft Rush	<i>Juncus effuses</i>
Star Sedge	<i>Carex echinata</i>
Total = 11	

Field no. 5 – Gillheads Meadow

Gillheads Meadow had ten indicator species and thus is graded 3b because of its greater botanical interest but there were no signs of 'rare' species (see Appendix 1).

Grasses

Annual Meadow-grass	<i>Poa annua</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common Bent	<i>Agrostis capillaris</i>
Crested Dog's-tail	<i>Cynosaurus cristatus</i>
Fescue spp.	<i>Festuca</i> spp.
Mat Grass	<i>Nardus stricta</i>
Meadow Oat-grass	<i>Avenula pratensis</i>
Meadow-grass spp	<i>Poa</i> spp.
Perennial Rye-grass	<i>Lolium perenne</i>
Quaking Grass	<i>Briza media</i>
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Tufted Hair-grass	<i>Deschampsia cespitosa</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Total = 13	

Herbs

Barren Strawberry	<i>Potentilla sterilis</i>
Betony	<i>Stachys officinalis</i>
Bird's foot-trefoil	<i>Lotus corniculatus</i>
Bugle	<i>Ajuga reptans</i>
Bush Vetch	<i>Vicia sepium</i>
Common Dog-violet	<i>Viola riviniana</i>
Common Mouse-ear	<i>Cerastium fontanum</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Crosswort	<i>Cruciata laevipes</i>
Daisy	<i>Bellis perennis</i>
Eyebright spp.	<i>Euphrasia</i> spp.

Fairy-flax	<i>Linum catharticum</i>
Germander Speedwell	<i>Veronica chamaedrys</i>
Harebell	<i>Campanula rotundifolia</i>
Hawkweed spp	<i>Hieracium spp.</i>
Heath Bedstraw	<i>Galium saxatile</i>
Lady's Bedstraw	<i>Galium verum</i>
Marsh Thistle	<i>Cirsium palustre</i>
Meadow Buttercup	<i>Ranunculus acris</i>
Mouse-ear Hawkweed	<i>Pilosella officinarum</i>
Nettle	<i>Urtica dioica</i>
New Zealand Willowherb	<i>Epilobium brunnescens</i>
Red Clover	<i>Trifolium pratense</i>
Ribwort Plantain	<i>Plantago lanceolata</i>
Salad Burnet	<i>Sanguisorba minor</i>
Self-heal	<i>Prunella vulgaris</i>
Spear Thistle	<i>Cirsium vulgare</i>
Tormentil	<i>Potentilla erecta</i>
White Clover	<i>Trifolium repens</i>
Wild Thyme	<i>Thymus polytrichus</i>
Yarrow	<i>Achillea millefolium</i>
Total = 30	

Sedges and Rushes

Carnation Sedge	<i>Carex panacea</i>
Common Sedge	<i>Carex nigra</i>
Compact Rush	<i>Juncus conglomerates</i>
Field Wood-rush	<i>Luzula campestris</i>
Glaucous Sedge	<i>Carex flacca</i>
Heath Rush	<i>Juncus squarrosus</i>
Jointed Rush	<i>Juncus articulatus</i>
Oval Sedge	<i>Carex leporine</i>
Sharp-flowered Rush	<i>Juncus acutiflorus</i>
Soft Rush	<i>Juncus effuses</i>
Total = 10	

Appendix 17.1A

Indicator species used in the identification of species-rich meadows and pastures

Common Species of Meadow Communities

Ajuga reptans
Alchemilla spp
Alopecurus geniculatus
Anemone nemorosa
Avenula pratense
A. pubescens
Briza media
Caltha palustris
Carex caryophylllea
C. flacca
C. panicea
Conopodium majus
Euphrasia spp
Filipendula ulmaria
Galium verum
Geranium pratense
G. sylvaticum
Geum rivale
Hypochoeris radicata
Knautia arvensis
Lathyrus pratensis
Leontodon hispidus
Lotus corniculatus
Luzula campestris
Lychnis flos-cuculi
Plantago media
Primula veris
Prunella vulgaris
Sanguisorba minor
Sanguisorba officinalis
Saxifraga granulata
Stachys officinalis
Stellaria graminea
Succisa pratensis

(34 species)

Rare Species of Meadow Communities

Botrychium lunaria
Cirsium helenioides
Dactylorhiza fuchsii
D. maculata
D. majalis ssp purpurella
Gymnadenia conopsea
Listera ovata
Meum athamanticum
Ophioglossum vulgatum
Platanthera bifolia
Polygonum bistorta
Primula farinosa
Trollius europaeus

(13 species)

Appendix 17.1B Grading System

- 2 -

2. METHODOLOGY

2.1 Additions

This section describes two additions we have made to the Phase I Survey methodology in order to provide a quick assessment of the botanical richness of sites and give a context for comparing the importance of sites in relation to their vegetation structure and composition. The first uses the concept of indicator species to summarise the species-richness of meadows and pastures; the second is a system devised by ourselves to grade target-noted sites according to their 'botanical importance'.

2.1.1 Hay meadow grades

In order to give a rough idea of the botanical interest of enclosed hay meadows and pastures, a simple grading system was introduced based on the presence of indicator species. The system is similar to that used by an earlier NCC survey of hay meadows in the National Park (NCC, 1982).

Appendix II lists the indicator species. These are species considered to be characteristic of traditionally managed meadows or pastures. The system of grading is as follows:

Grade 2: These fields have few herbs and usually none of the indicator species. Mainly a mixture of the more ubiquitous agricultural grasses. They are of low botanical interest and have been intensively improved with fertilisers and possibly reseeded.

Grade 2/3a: This is an additional category devised for the 1987 and 1988 field seasons. Represents those fields with a range of herbs and grasses present but otherwise with no indicator species. It distinguishes grasslands with some conservation (and landscape) interest from the heavily improved/reseeded swards covered by the grade 2 category.

Grade 3a: A low abundance of herbs with 1-4 indicator species present.

Grade 3b: Fields of greater botanical interest with 5-9 indicator species, possibly including one or two classed as 'rare'.

Grade 4: Fields with 10 or more indicator species, many of which are abundant. May include 'rare' species. This category represents the most species-rich meadows of highest botanical interest and those most likely to be traditionally managed.

It must be stressed that this hay meadow grading system is strictly dependent on the number of different indicator species present, and does not take into account the relative abundance and distribution of those species, or the presence of any non-indicator species which may be of interest. For these reasons it is very important that the hay meadow grades are not taken in isolation as a measure of conservation interest.

Appendix 17.1C

Indicator species for upland hay meadows taken from *Hay Time: Analysis of Survey Data 2006-2011* (Perry and Gamble, 2012).

Upland hay meadow species		Comment
Meadow buttercup	<i>Ranunculus acris</i>	Common in most upland hay meadows
Wood crane's-bill	<i>Geranium sylvaticum</i>	Common in most upland hay meadows
Pignut	<i>Conopodium majus</i>	Common in most upland hay meadows
Ladies'-mantle	<i>Alchemilla</i> sp.	Common in most upland hay meadows
Great burnet	<i>Sanguisorba officinalis</i>	Common in most upland hay meadows
Yellow rattle	<i>Rhinanthus minor</i>	Common in most upland hay meadows
Bulbous buttercup	<i>Ranunculus bulbosus</i>	Common in most upland hay meadows
Hawkbits	<i>Leontodon</i> sp.	Common in most upland hay meadows. Not separated out to ease identification, but could be separated into autumn hawkbit <i>Leontodon autumnalis</i> and rough hawkbit <i>Leontodon hispidus</i>
Red clover	<i>Trifolium pratense</i>	Common in most upland hay meadows
Cat's-ear	<i>Hypochaeris radicata</i>	Common in most upland hay meadows
Common bird's-foot trefoil	<i>Lotus corniculatus</i>	Common in most upland hay meadows
Common / black knapweed	<i>Centaurea nigra</i>	Can be common in some upland hay meadows but might not be present or at low levels
Meadow vetchling	<i>Lathyrus pratensis</i>	Common in most upland hay meadows
Oxeye daisy	<i>Leucanthemum vulgare</i>	Can be common in some upland hay meadows but might not be present or at low levels
Self-heal	<i>Prunella vulgaris</i>	Can be common in some upland hay meadows but might not be present or at low levels
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	Common in most upland hay meadows
Crested dog's-tail	<i>Cynosurus cristatus</i>	Common in most upland hay meadows

Appendix 17.2 Supplementary Botanical Survey

Margaret Barker and Sally Edwards

Field no. 2 – Old House Paddock

Trees

Mature sycamore *Acer pseudoplatanus*
 Two mature ash trees *Fraxinus excelsior*

Grasses

Fescue *Festuca* spp.
 Crested dog's tail *Cynosaurus cristatus*
 Common bent *Agrostis capillaris*
 Perennial rye grass *Lolium perenne*
 Annual meadow grass *Poa annua*

Herbs

In stream: Brookweed *Samolus* spp.
 Sorrel *Rumex acetosa*
 Meadow Buttercup *Ranunculus acris*
 Creeping buttercup *Ranunculus repens*
 Mouse-eared chickweed *Cerastium vulgatum*
 Germander speedwell *Veronica chamaedrys*

White clover	<i>Trifolium repens</i>
Celandine	<i>Ranunculus</i> spp
Self-heal	<i>Prunella vulgaris</i>
Lady's smock/cuckoo flower	<i>Cardamine pratensis</i>
Saxifrage	<i>Saxifraga</i> spp.

Moss

The privy

Grasses

Fescue	<i>Festuca</i> spp.
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Herbs

Dove's-foot crane's-bill	<i>Geranium molle</i> - all over the top of its ruined walls and in a pile of stones at the base
Fescue	<i>Festuca</i> spp. - on top of the wall
Chickweed	<i>Cerastium vulgatum</i>
Buttercup	<i>Ranunculus</i> spp.
Germander speedwell	<i>Veronica chamaedrys</i>
Thistle	<i>Cirsium</i> spp.
Nettle	<i>Urtica dioica</i>

Moss

Lichens

Field no. 7 – Flash and no. 14 – Flash Back (lower section)

Trees

Alder	<i>Alnus glutinosa</i>
Beech	<i>Fagus sylvatica</i>
Ivy	<i>Hedera helix</i>
Rowan	<i>Sorbus aucuparia</i>

Grasses

Crested dog's tail	<i>Cynosaurus cristatus</i>
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Herbs

Daisy	<i>Bellis perennis</i>
Violet	<i>Viola</i> spp.
Primrose	<i>Primula</i> spp.
Thyme	<i>Thymus vulgaris</i>
Wild strawberry	<i>Fragaria vesca</i>
Bedstraw	<i>Galium</i> spp.
Sweet woodruff	<i>Galium adorum</i>
Yarrow	<i>Achillea millefolium</i>
Self-heal	<i>Prunella vulgaris</i>
Trefoil	<i>Lotus</i> spp.
Plantain	<i>Plantago</i> spp.
Chickweed	<i>Cerastium vulgatum</i>

Lady's smock/cuckoo flower	<i>Cardamine pratensis</i>
Mountain pansy	<i>Viola lutea</i>
Mouse ear hawkweed	<i>Hieracium pilosella</i>
Thrift	<i>Armeria maritima</i>
Salad Burnet	<i>Sanguisorba minor</i>
Harebell	<i>Campanula rotundifolia</i>
Cat's-ear	<i>Hypochaeris radicata</i>

Moss

Field no. 3 – Hogg House Meadow

Grasses

Fescue	<i>Festuca</i> spp.
Yorkshire fog	<i>Holcus lanatus</i>
Crested dog's tail	<i>Cynosaurus cristatus</i>
Common bent	<i>Agrostis capillaris</i>

Herbs

Germander Speedwell	<i>Veronica chamaedrys</i>
Yarrow	<i>Achillea millefolium</i>
Crosswort	<i>Cruciata laevipes</i>
Chickweed	<i>Cerastium</i> spp.
Stoncrop	<i>Sedum</i> spp.
White Clover	<i>Trifolium repens</i>
Eyebright	<i>Euphrasia</i> spp.
Forget me not	<i>Myosotis</i> spp.
Self-heal	<i>Prunella vulgaris</i>
Dandelion	<i>Taraxacum</i> spp
Lady's smock/ cuckoo flower	<i>Cardamine pratensis</i>
Bird's foot trefoil	<i>Lotus corniculatus</i>
Horseshoe vetch	<i>Hippocrepis comosa</i>
Mossy saxifrage	<i>Saxifraga bryoides</i>

Mosses

Appendix 17.3 Thorns Wall Survey: Estimation of Ages of Walls

Dr Michael J Slater

A method of estimating the ages of dry-stone walls developed over the past few years by the author of this note has been applied to two walls at Thorns. The method uses statistical description of the size of random deviations from straightness (sinuosity) of multiple lengths of nominally straight 25m sections. The background mathematics and calculations are described in an article available online and the practical measurements are simple and quick to carry out.⁷⁴ Excel spreadsheet calculations are used to process measurements. Measurements of offset (just under topstones) from a 25m tape

⁷⁴ Drystone Walls by T. C. Lord and M. J. Slater at <http://www.northcravenheritage.org.uk/NCHT/ArchiveIndex.htm>).

laid on the ground in a position estimated to be parallel to the original building line, plus measurements of wall height (both to nearest 50mm), were recorded every 1m along the tape.

David Johnson has found documents to indicate that Wall no. 33 was built in 1802-03.⁷⁵ Measurement of this wall adds a datum point to the current correlation graph predicting wall age and adds support to the method. The variation in results found by using several observers making measurements along each section helps determine the size of errors involved in having different observers. This evidence has so far been lacking.

The northern side of Wall no. 33 has been measured but only five sections of 25m length of the total 600m were suitable since the eastern section of the wall has decayed and has a wire fence alongside. The ground is generally soft and wet allowing ground movement. Wall no. 19 is suitable for measuring and making a prediction of age since it is in reasonable condition with many nominally straight 25m sections. The ground is soft but not markedly sloping. The north-west side was measured in the time available.

Wall no. 33 has Google Earth references: Start point 54 degrees, 12 minutes, 28.2 seconds N, 2 degrees, 19 minutes, 59.5 seconds W; End point 54 degrees, 12 minutes, 36.9 seconds N, 2 degrees, 19 minutes, 28.9 seconds W.

Wall no. 19 starts at the Thorns settlement, going south westerly, the measured length of about 225m being about 54°12'29" N to 2°20'14"W , 54°12'22"N to 2°20'19"W.

The measurements were made by Ray and Ros Noy and Mike Slater with each measuring offsets, on 19 October 2016.

Wall no. 33

Five sections of 25m each were measured with the following results:

Section	Standard deviation, σ , cm	Weight factor, w
i	12.86	0.73
ii	17.32	0.71
iii	17.48	0.69
iv	24.80	0.65
v	17.49	0.66

The offset data are compounded to give an overall result of:

Standard Deviation 18.11cm and weight factor 0.69. The correlation equation is:

Age = 29 w (σ -4) years

which gives Age = 281 years, build date 1735±49 with 68 per cent probability and ±98 years with 95 per cent probability. This is to be compared with the known date of 1802-03.

The Standard error of the Standard deviation is:

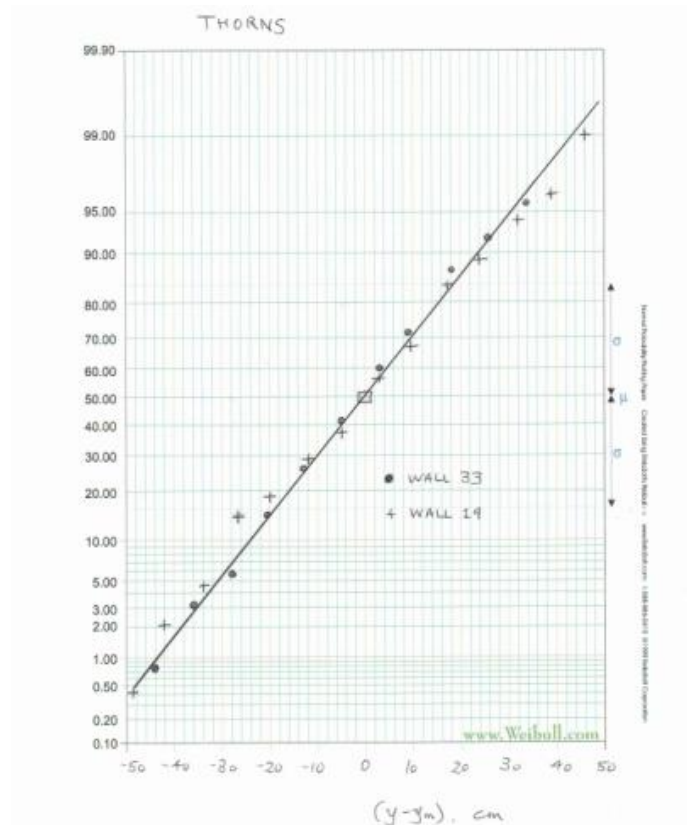
$\sigma / \sqrt{2N} = 1.59$ cm

⁷⁵ West Yorkshire Joint Services, Ingleborough Estate papers, WYL 524/324 – Newby: Thorns, Agreement made 26 May, 1802.

where N is the number of measurements (in this case 5 x 26). This number of sections is smaller than desirable but could not be increased to give a more certain characteristic standard deviation.

The wall weight factor is the mean height divided by 1.6m which is taken to be the height of a 'Standard' wall 1.6m high (7 quarter yards or 63"), 800mm (32") wide at the base and 400mm (16") wide at the top. The wall is seen to be reasonably uniform in height but rather lower than a standard wall and the Standard deviations of the five sections are notable for consistency, allowing for some repaired parts and distorted parts.

The offset data are seen to be Normally distributed as shown by the straight line through 50 per cent, 0.0 on the Probability plot.



Wall no. 19



Fig. 17.1 Wall no. 19

Nine sections of 25m each were measured with the following results. The last section was measured three times by three observers.

Section	Standard deviation, σ , cm	Weight factor, w
i	26.12	0.86
ii	17.21	0.91
iii	26.05	0.89
iv	21.47	0.84
v	33.15	0.88
vi	13.79	0.86
vii	17.87	0.86
viii	10.05	0.88
ix Mike	18.44	0.93
ix Ray	21.54	0.88
ix Ros	20.25	0.90

The wall weight factor is remarkably uniform but the Standard deviations vary as is typical of an old wall repaired at various times. The offset data are seen to be Normally distributed as shown by the straight line through 50 per cent, 0.0 on the Probability plot shown above.

The offset data are compounded to give an overall result of:

Standard Deviation 21.14cm and weight factor 0.88. The correlation equation is:

Age = 437 years, build date 1579 +/-62 for 66 per cent probability. However, there is a reason for suspecting that this calculated date is doubtful.

The Standard deviation for section v is abnormally large and the profile of the offsets against the length of the wall shows that the wall is uniformly curved and not subject to a localised large disturbance over one or two meters due to ground movement, the assumption on which the method is predicated. All the other section profiles show multiple irregular deviations from linearity as expected. Inspection on Google Earth shows a change in alignment not recognised at the time on the ground so there is good reason for rejection of these data (section v measured at 54°12'26.4"N, 2°20'15.9"W).

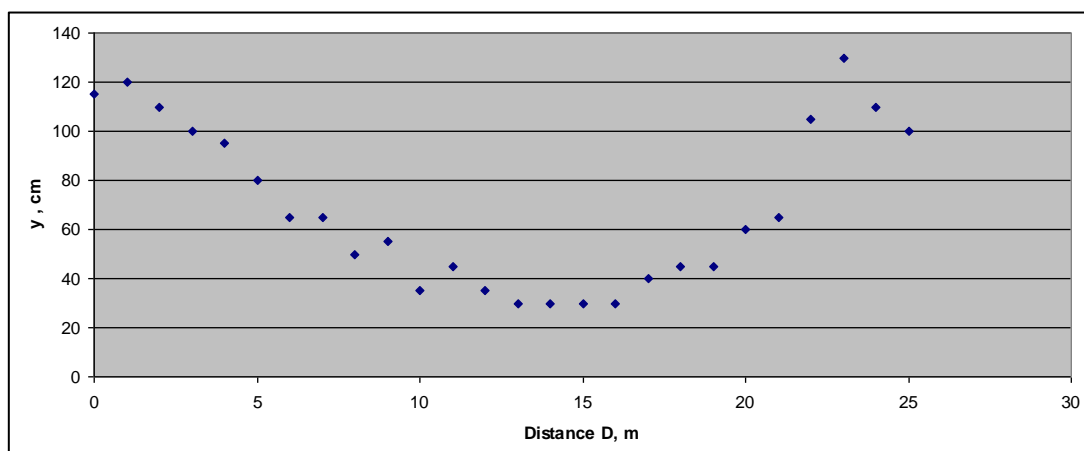


Fig. 17.2 Wall 19, section v profile

The offset data compounded without section v data give a smaller Standard Deviation of 192.5mm and the same weight factor 0.88. The correlation equation then gives: Age = 389 years, build date 1627±58 for 66 per cent probability.

This estimate of age is more rational. The Standard error of the Standard deviation is:

$$\sigma / \sqrt{2N} = 1.33 \text{ cm}$$

where N is the number of measurements (in this case 8 x 26).

The last three records for Section ix were made by the three observers for the same position of the tape. The Standard deviations vary satisfactorily between the limits of the expected Standard error of the Standard deviation.

Conclusion

Wall no. 33 has an estimated build date of 1735±49 years with 68 per cent probability which is to be compared with the known build date of 1802-03. This datum point added to the correlation graph data slightly reduces the equation constant of 29 so that calculated ages will be slightly smaller than calculated in this note.

Wall no. 19 has an estimated build date of 1627±58 years with 68 per cent probability which together with the nature of the structure of the wall appears to be sensible.

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