

ARCHAEOLOGICAL EVALUATION
ON
LAND ADJOINING MILLEND HOUSE,
MILLEND LANE,
MITCHELDEAN,
GLOUCESTERSHIRE

Jo Wainwright

With contributions by Tom Vaughan and Angus Crawford

Illustrations by Steve Rigby

13th December 2007

© Historic Environment and Archaeology Service,
Worcestershire County Council

Historic Environment and Archaeology Service,
Worcestershire County Council,

Woodbury,
University of Worcester,
Henwick Grove,
Worcester WR2 6AJ



INVESTOR IN PEOPLE

Project 3141
Report 1578

Contents

Part 1 Project summary

1

Part 2 Detailed report

1.	Background	3
1.1	Reasons for the project.....	3
1.2	Project parameters.....	3
1.3	Aims.....	3
2.	Methods	3
2.1	Documentary search.....	3
2.2	Fieldwork methodology.....	4
2.2.1	Fieldwork strategy.....	4
2.2.2	Structural analysis.....	4
2.3	Artefact methodology, by Angus Crawford.....	4
2.3.1	Artefact recovery policy.....	4
2.3.2	Method of analysis.....	4
2.4	The methods in retrospect.....	5
3.	Topographical and archaeological context, by Tom Vaughan	5
4.	Results	7
4.1	Structural analysis.....	7
4.1.1	Phase 1 Natural deposits.....	7
4.1.2	Phase 2 Medieval deposits.....	7
4.1.3	Phase 3 Post-medieval deposits.....	7
4.2	Artefact analysis, by Angus Crawford.....	8
4.2.1	Discussion of the pottery.....	9
4.2.2	Other finds.....	10
5.	Synthesis	11
5.1	Medieval.....	11
5.2	Post-medieval.....	11
5.2.1	The finds.....	11
6.	Significance	12
6.1	Archaeological.....	12
7.	Recommendations	13
8.	Publication summary	13
9.	Acknowledgements	13
10.	Personnel	13
11.	Bibliography	14

Archaeological evaluation on land adjoining Millend House, Millend Lane, Mitcheldean, Gloucestershire

Jo Wainwright

With contributions by Tom Vaughan and Angus Crawford

Part 1 Project summary

An archaeological evaluation was undertaken on land adjoining Millend House, Millend Lane, Mitcheldean, Gloucestershire (NGR: SO 663 185). It was undertaken on behalf of Mrs Elaine Powell, who intends residential development of the site, for which a planning application will be submitted to Forest of Dean District Council. The project aimed to determine if any significant archaeological remains were present and if so to indicate their nature, date and location.

The archaeological remains identified comprise medieval activity in the form of an iron bloomery and possible structure surrounding the bloomery. Associated surfaces, pits and dumps of iron smelting waste were also of a medieval date. A probable early post-medieval demolition deposit and successive garden deposits sealed the medieval features and layers.

Given the *high level of survival* of both structural remains and deposits of medieval date the site is thus considered to be of *regional importance* and to have a *high* potential for yielding further information, regarding both the occupation and industrial utilisation of this part of Mitcheldean.

These remains are *vulnerable* to disturbance by development, given their existence at approximately 1.00m below the present ground surface.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

An archaeological evaluation was undertaken on land adjoining Millend House, Millend, Mitcheldean, Gloucestershire (NGR SO 663 185) (Fig 1), on behalf of Mrs Margaret Elaine Powell (the Client) who intends to erect a detached dwelling and double garage. A planning application was previously submitted in 2002 to Forest of Dean District Council (ref. DF2730/G). Gloucestershire County Council's Senior Archaeologist considered that remains of archaeological interest may be affected by this development.

1.2 Project parameters

The project conforms to the *Standard and guidance for archaeological field evaluation* (IFA 1999). The project also conforms to a standard brief prepared by Gloucestershire County Council's Senior Archaeologist (ASEDGCC 2007) and for which a project proposal (including detailed specification) was produced (HEAS 2007).

1.3 Aims

The aims of the evaluation were to locate archaeological deposits and determine, if present, their extent, state of preservation, date, type, vulnerability and documentation. The purpose of this was to establish their significance, since this would make it possible to recommend an appropriate treatment, which may then be integrated with the proposed development programme.

2. Methods

2.1 Documentary search

Prior to fieldwork commencing a search was made of the Gloucestershire Sites and Monuments Record (GSMR) and Gloucestershire Archives (GA). In addition to the sources listed in the bibliography the following were also consulted:

Cartographic sources

- 1838, Mitcheldean Tithe Plan, as transcribed by G. Gwatkin, GA ref. PC1812/1 (sometimes dated 1840)
- 1st edition Ordnance Survey map, 1878, 25":1 mile
- 1891, Ordnance Survey map, 6":1 mile
- 1900 Ordnance Survey map, 25":1 mile
- 1903, Ordnance Survey map, 6":1 mile
- 1923 Ordnance Survey map, 25":1 mile
- 1924, Ordnance Survey map, 6":1 mile
- 1953 Ordnance Survey map, 25":1 mile

- 1953, Ordnance Survey map, 6":1 mile

2.2 **Fieldwork methodology**

2.2.1 **Fieldwork strategy**

A detailed specification was prepared by the Service (HEAS 2007a). As a result of the site visit and discussions with Rob Sweet (Countryside Officer, Forest of Dean District Council) adjustments were made to the fieldwork strategy. Dense undergrowth and a tree preservation order on the site limited the location of the excavation area. One trench was excavated covering an area of approximately 32m² (20m x 1.6m; representing *c* 4% of the development site area of *c* 792m², Fig 2). It should be noted that due to the dense undergrowth and tree cover on site, it was not possible to accurately locate the trench. Figure 2 is therefore an approximation of the trench position.

Fieldwork was undertaken between 15th October 2007 and 18th October 2007. The site reference number and site code allocated by the Service is P3141.

Deposits considered not to be significant were removed under archaeological supervision, using a 360° tracked mini excavator, employing a toothless bucket. Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material, as well as to determine their nature. Deposits were recorded according to standard Service practice (CAS 1995). Gloucestershire County Council's Senior Archaeologist requested that significant features in part of the western end of the trench were not excavated, but left *in situ*. Therefore only four pits were excavated to retrieve dating evidence. On completion of excavation, the trench was reinstated by replacing the excavated material.

The following techniques were considered for use but were not considered to be appropriate for this project; geophysical survey, fieldwalking and topographic/earthwork survey.

2.2.2 **Structural analysis**

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural and artefactual evidence, allied to the information derived from other sources.

2.3 **Artefact methodology, by Angus Crawford**

2.3.1 **Artefact recovery policy**

The artefact recovery policy conformed to standard Service practice (CAS 1995; appendix 2). However, some deposits contained large quantities of iron smelting slag and waste so only a sample was recovered.

2.3.2 **Method of analysis**

All hand-retrieved finds were examined and a primary record was made on a Microsoft Access 2000 database. Artefacts were identified, quantified and dated and a *terminus post quem* date produced for each stratified context.

The pottery and ceramic building material was examined under x20 magnification and recorded by fabric type and form according to the fabric reference series maintained by the service (Hurst and Rees 1992; Hurst 1994).

2.4 **The methods in retrospect**

The methods adopted allow a high degree of confidence that the aims of the project have been achieved.

3. **Topographical and archaeological context, by Tom Vaughan**

The site is located in the centre of Mitcheldean, approximately 750m southwest of the church. It covers a rectangular area of *c* 792m², bounded by Stenders Road/Millend Lane to the northwest, Millend House to the northeast, New Street lane to the south-east and gardens alongside Stenders Cottage to the south-west. It is currently under dense undergrowth, shrubs and tree cover, including a number of ancient apple trees and a red cedar to the north-west corner. This latter is the subject of a tree preservation order (pers comm Rob Sweet, Countryside Officer, Forest of Dean District Council). High limestone walls define the site on three sides.

The site lies to the west of the centre of the medieval settlement, within Mitcheldean Conservation Area, which is focussed on St Michael's church (NGR: SO 663 185), Stenders Road, High Street and Hawkers Hill. The town is approximately 16.5km to the west of Gloucester, on the northeast edge of the Forest of Dean. It has its origins in the pre-Conquest period, when it developed as a hamlet around the crossroads known as the Cross. It was known as Dene Magna from the 13th century, had been granted the right to hold a market from 1328 and prospered through the medieval and post-medieval periods as a market town, particularly with brewing (GSMR 5859), iron, cloth and leather working (GSMR 21849), although it fell into decline in the later 18th century (GSMR 17324-5).

The present church of St Michael and All Angels is of 14th century date, although has undergone major alterations, particularly in 1460 when a wide aisle was added and in 1853 when it underwent restoration under the auspices of Henry Woodyer (GSMR 21769). The market place lay to the east of the church, and included a cross or market house known as chipping cross in 1537 (GSMR 17324). The eastern end of Stenders Road, running west from the Cross, was known as Millend (Street) by 1469, after the water mill first documented in 1318, located on the churchyard brook to the north (probably near the present Upper Mill Close; GSMR 20458). In 1371 a Richard atte Mill was recorded as the miller. This remained in use until at least the mid 17th century, but had been demolished by 1696. New Street was laid out as a back lane as early as 1396, to the rear of properties along the Stenders Road frontage (Anon. 1963, 15; VCH V 1996, 173-95; Mason 2001, 29).

A manor house, known as Court Hall or Court House formerly occupied land to the west of the church. It was first recorded in 1319 and was under the ownership of the Colchester family in the 17th century. However by 1642 it was described as being in a state of disrepair and by 1696 had been demolished (GSMR 20538). A number of listed buildings are located in the vicinity. The south frontage of Millend Lane, to the east of the site, contains: a single bay, three storey rendered 18th century house (GSMR 13884), a three bay, two storey, jettied 16th century timber framed house (GSMR 13885) and a 15th to 19th century house and shop with a rendered stone on timber framing façade (GSMR 13886). Along Stenders Road, due west of the site is Stenders Cottage, an early 19th century detached house, with a plain stone plinth, rendered walls and a slate roof (GSMR 13889). Off New Street to the south lies May Lawn, another early 19th century detached house, with plain rendered plinth and walls and a slate roof (GSMR 13887; Plate 3).

Cartographic sources indicate that the site has remained unoccupied by buildings and undeveloped for the last 170 years, and formed part of a larger plot focussed on the present Millend House located to the north-east (Fig 3). Until the end of the 19th century Stenders Cottage garden was also apparently part of this property, which was bisected by a north-north-west to south-south-east aligned footpath between New Street and Stenders Road. The present L-shaped house and associated workshop/garage building were built sometime

between 1925 and 1953. The house was originally built on a square-plan, probably *c* 1930, given the original metal framed windows and French windows. Prior to that a smaller rectangular building occupied the approximate position of the present workshop/garage from at least 1838. A pound for stray animals with a number of small structures occupied the corner of Millend Lane and New Street from the early 19th century. The pound, or at least the compound it occupied, remained until the mid 20th century (VCH V 1996, 173-96).

The OS maps of 1878-1925 indicate a large number of orchards around the immediate periphery of the town (Fig 3). In addition a number of field names on the 1838 tithe plan are given as 'Orchard' (i.e. Mill House Orchard, GSMR 21850). Although a number of ancient apple trees exist on the site, there are no known sources that identify it as part of a larger orchard.

Photographs of Mill End Street from the Cross taken in 1905 and 1910, show the existing high limestone boundary wall curving around the north-east corner of the Millend property, with a narrow pedestrian access on the north side (the wall has now been pierced for vehicular access off new Street), and trees within the grounds. Further photographs taken from the bottom of Stenders Hill towards Millend to the north-east circa 1905 (Plate 1) and from the church tower south-westwards around 1910 (Plate 2), confirm the continuation the high stone walls and the tree cover within the grounds, although the latter appears to show the western extent of the property put to grass. There is no detail of the pound, which must have contained only single storey buildings (Mason 2001, 29-32).

A photograph of circa 1920 depicts the previous structure on the site of the present workshop/garage; a timber framed building with a steep pitched tile roof and a lean-to extension on the north side, identified as Walnut Tree Cottage (Plate 3; *ibid.* 31).

Although Mitcheldean is a medieval settlement, there is a small amount of evidence for earlier human activity in the area. Aerial photos taken in 1947 revealed cropmarks of two possible Bronze Age round barrows to the east of the Cross (GSMR 22762). Unfortunately the area was subsequently developed as Eastern Avenue residential estate without prior archaeological investigation, so the features are presumed to have been destroyed. A small assemblage of worked flint flakes of indeterminate prehistoric date have been found during field walking at Wilderness Farm, to the west of the town (GSMR 20072). A Roman road has been projected to run east-west across this estate towards the Cross (GSMR 7123) and under Stenders Road to Lower Lydbrook via Drybrook and Ruardean (GSMR 5666). However a research project undertaken in 2003 on undeveloped land off Dean Meadow was unable to identify any visible trace of it (GSMR 22140). It has however been argued that many 'Roman Pavements' within the Forest of Dean are in fact more likely to be early modern surfaces, which have been wrongly attributed by over zealous observers during subsequent exposure and road reconstruction (GSMR 5666, 5904).

The predominant soils of the immediate area belong to the Eardiston 1 Soil Association (541c), comprising well drained reddish coarse loamy soils over sandstone, shallow in places especially on brows, some reddish fine silty soils over shale and siltstone, over parent material of Devonian and Permo-Triassic reddish sandstone, silty shale and siltstone. On the slopes to the west there are successive narrow bands of soils belonging to the Crwbin Soil Association (313c) comprising very shallow and shallow well drained loamy soils over limestone, often on steep slopes, limestone pavement and other rock exposures common, over parent material of carboniferous limestone; the Withnell 1 Soil Association (611d), comprising well drained loamy soils over sandstone usually on steep slopes, some fine loamy soils with slowly permeable subsoils and slight seasonal waterlogging, bare rock locally, over Palaeozoic sandstone; and the Dunkeswick (711p) comprising slowly permeable seasonally waterlogged fine loamy and fine loamy over clayey soils, associated with similar clayey soils, over parent material of till from Palaeozoic and Mesozoic sandstone and shale (Soil Survey of England and Wales, 1983).

4. Results

4.1 Structural analysis

The trenches and features recorded are shown in Figs 4-6 and Plates 4-9. The results of the structural analysis are presented in Appendix 1 and 2.

4.1.1 Phase 1 Natural deposits

The natural red sandstone bedrock and pink clays (130) were only seen in the base of pits (106), (108), (112) and (129), at a depth of *c* 1.13m below the present ground surface.

4.1.2 Phase 2 Medieval deposits

An occupation surface or layer (102), dated to the late 11th to 14th century, was uncovered in the south arm of the trench (Plate 4) at *c* 0.76m below the modern ground surface. It was cut by three medieval pits (110), (129) and (108) and overlain by a series of iron smelting slag and waste dumps (119), (104), (105) and (125). Pit (108) was cutting pit (129). The function of the three pits was not discernible from the backfills.

The four dumps of iron smelting slag and waste were situated in the western arm of the trench and were not excavated (Plates 5 and 6). Cutting dump (105) was a stone lined pit (106) (Plate 7). This pit was either square or rectangular in plan and was lined (120) by vertically positioned ?grey forest stone (limestone) along the western edge of the cut. It is possible that the other sides of the cut were also lined with stone. The pit was excavated into the natural bedrock and clay (130). The backfill of the pit (107) contained pottery of probable 15th century date.

Overlying iron smelting waste dump (125) was a late 13th-14th century occupation surface or layer (114). Set into this surface was a possible foundation for a wall (117). Adjacent to the wall was the base of probably an iron bloomery (115), (118) and (116) (Plates 8 and 9). The foundation was made up of two ?grey forest stones (limestone) aligned roughly north to south. It is possible that other blocks of stone pressed into (114) are disturbed stones from this feature.

The cut (115) for the iron bloomery was sub-circular with a diameter of roughly 0.75m. The layer (114) surrounding the cut had obviously been subjected to intense heat as it was badly scorched up to a distance of 0.40m in places. However, in the north the scorching was less apparent which suggests that this area had been subjected to less heat. Perhaps this was the position of the arch through the wall in the base of the furnace, which allowed the slag to be removed. Vitrified material (118), either slag adhering to the side of the cut or a lining of the furnace could be seen around the south-eastern edge of the cut. The feature was backfilled (116) with a deposit containing much iron slag and waste.

4.1.3 Phase 3 Post-medieval deposits

From a depth of *c* 0.70m and sealing features in the western arm of the trench was a 0.50m thick mixed layer (103) containing demolition rubble, which included ?grey forest stone (limestone) and red sandstone. Some of the stones had been squared. Pottery recovered from (103) was of a medieval and early post-medieval date, except one sherd dated from the 19th century. It is possible that this later sherd was intrusive. Above (103) was a very thick garden soil deposit (101), to a depth of up to *c* 1.30m below the present ground surface, of probable 18th century date.

In the south arm of the trench an 18th century rubbish pit (112) cut layer (101). In the west arm of the trench two irregular cuts (122) and (124) were seen cutting the medieval layer (114). However, from the shape and fills of these cuts it can be surmised that they are the

remains of tree roots growing through layer (101). Above (101) was the topsoil (100), which was up to 0.29m thick.

4.2 Artefact analysis, by Angus Crawford

The artefactual assemblage recovered is summarised in Tables 1 – 3. The pottery assemblage retrieved from the excavated area consisted of 115 sherds of pottery weighing 1.894kg. In addition, fragments of roof tile, brick, vessel glass, iron slag, charcoal, shell, clay tobacco pipe and animal bone were recovered. The group came from 12 stratified contexts and could be dated from the medieval period onwards (see Table 1). The level of preservation was generally good, with the majority of sherds displaying only moderate levels of abrasion.

Context	Material	Type	Total	Weight (g)
100	Ceramic building material	Brick	1	75
100	Clay tobacco pipe	Stem	4	10
100	Glass	Vessel	2	27
100	Pottery	Lid	1	7
100	Pottery	Modern	10	210
100	Pottery	Post-medieval	10	99
100	Pottery	Post-medieval to modern	2	52
100	Shell	Oyster	1	52
100	Tile	Ridge	1	39
100	Tile	Roof	1	32
101	Bone	Animal	44	822
101	Charcoal	Fuel	1	0.5
101	Clay	Fired	3	32
101	Clay tobacco pipe	Stem	2	3
101	Clay tobacco pipe	Various	3	11
101	Glass	Vessel	2	51
101	Iron	Nail	1	4
101	Iron	Slag	4	734
101	Iron	Unidentified	1	23
101	Pottery	Medieval	1	121
101	Pottery	Medieval to post-medieval	5	60
101	Pottery	Post-medieval	26	565
101	Slag	Iron	7	515
101	Tile	Glazedroof	3	144
101	Tile	Roof	7	428
102	Pottery	Medieval	2	3
103	Bone	Animal	15	268
103	Pottery	Medieval	1	11
103	Pottery	Medieval to post-medieval	5	109
103	Pottery	Modern	1	1
104	Slag	Iron	21	3660
107	Bone	Animal	20	215
107	Charcoal	Fuel	1	0.5
107	Pottery	Medieval	4	24
107	Pottery	Medieval to post-medieval	2	86
107	Slag	Iron	6	1111
109	Bone	Animal	3	11
109	Pottery	Med	3	61
109	Slag	Iron	1	46
111	Pottery	Medieval	4	21
111	Slag	Iron	2	72
113	Bone	Animal	8	403
113	Clay tobacco pipe	Stem	1	1
113	Glass	Vessel	1	112
113	Pottery	Post-medieval	12	135
113	Slag	Iron	2	662
114	Pottery	Medieval	3	49
116	Slag	Iron	5	2493
118	Clay	Fired	1	52
119	Slag	Iron	50	10690
121	Clay tobacco pipe	Stem	1	1
121	Pottery	Medieval	1	8

126	Bone	Animal	13	158
126	Pottery	?Medieval	1	1
126	Pottery	Medieval	11	74
128	Bone	Animal	32	274
128	Pottery	Medieval to post-medieval	10	197
128	Tile	Roof	1	42

Table 1: Quantification of the assemblage

4.2.1 Discussion of the pottery

All sherds have been grouped and quantified according to fabric type (see Table 2). A total of five diagnostic form sherds were present and could be dated accordingly, the remaining sherds were datable by fabric type to their general period or production span. Where mentioned, all specific medieval forms are referenced to the type series within the report for Deansway, Worcester (Bryant 2004).

The discussion below is a summary of the finds and associated location or contexts by period. Where possible, *terminus post quem* dates have been allocated and the importance of individual finds commented upon as necessary.

Context	Fabric	Fabric common name	Total	Weight (g)
100	75.1	North Devon gravel-free ware	1	23
100	78	Post-medieval red wares	4	55
100	81.4	Miscellaneous late stoneware	2	52
100	83	Porcelain	3	76
100	84	Creamware	4	18
100	85	Modern china	8	141
100	91	Post-medieval buff wares	1	3
101	69	Oxidized glazed Malvernian ware	6	181
101	81.5	White salt-glazed stoneware	1	7
101	90	Post-medieval orange ware	21	442
101	91	Post-medieval buff wares	4	116
102	64.1	Worcester-type sandy glazed ware	2	3
103	64.2	Glazed sandy white ware	1	11
103	69	Oxidized glazed Malvernian ware	5	109
103	85	Modern china	1	1
107	55	Worcester-type sandy unglazed ware	1	11
107	63	Brill/Boarstall ware	1	10
107	69	Oxidized glazed Malvernian ware	4	89
109	69	Oxidized glazed Malvernian ware	2	60
109	99	Miscellaneous medieval wares	1	1
111	99	Miscellaneous medieval wares	4	21
113	81.5	White salt-glazed stoneware	1	1
113	84	Creamware	1	1
113	90	Post-medieval orange ware	3	68
113	91	Post-medieval buff wares	7	65
114	64.1	Worcester-type sandy glazed ware	1	8
114	69	Oxidized glazed Malvernian ware	2	41
121	55	Worcester-type sandy unglazed ware	1	8
126	69	Oxidized glazed Malvernian ware	7	29
126	99	Miscellaneous medieval wares	5	46
128	69	Oxidized glazed Malvernian ware	10	197

Table 2: Quantification of the pottery by fabric

Medieval period

The medieval pottery assemblage consisted of 53 sherds of pottery, all of which exhibited negligible levels of abrasion. The dominant fabric type was of oxidised glazed Malvernian ware (fabric 69, totalling 38 sherds). The majority of the oxidized glazed Malvernian ware could only be dated to its general production span of the late 13th to early 17th century. However two form sherds could be more specifically dated with the rim of a flared bowl (Deansway type 69.9; context 101) dating from the late 15th to early 17th and a jug spout (Deansway type 69.2; context 114) dating from the late 13th to 14th century. Two further

probable diagnostic type sherds included a skillet profile (Deansway type 69.6; context 101) dating to the 15th century and a flared bowl rim (Deansway type 69.9; context 103) dating from the late 15th to early 17th century.

The remaining medieval pottery sherds consisted of three sherds of Worcester-type sandy glazed ware (fabric 64.1), two sherds of Worcester-type sandy unglazed ware (fabric 55) and single sherds of Brill/Boarstall ware (fabric 63) and glazed sandy white ware (fabric 64.2). The Worcester-type sandy glazed ware consisted of two sherds from context 102 and a single sherd from context 104. All three of these sherds could only be dated to their general production span, of late 11th to 14th century. Of the two sherds of Worcester-type sandy unglazed ware, one from context 121 could be specifically identified as a rim sherd from a thickened, everted rim cooking pot (Deansway type 55.3) dating from the 12th to mid 14th century, with the remaining sherd from context 107 being only datable to a general production span of late 11th to mid 14th century. The remaining sherds of Brill/Boarstall ware (context 107) and glazed sandy white ware (context 103) could only be dated to their general production spans of 13th century, and 13th to early 14th century respectively.

A further ten sherds of medieval pottery were noted but could not be identified by fabric type and therefore could only be classified as miscellaneous medieval (fabric 99). They are most likely indicative of Gloucester region ceramic industries that are currently unrepresented within the Service fabric type series.

Post-medieval to modern period

Sixty-two sherds of post-medieval and modern pottery were identified within the assemblage with all sherds being representative types from general domestic consumption. Of these, the dominant fabric types were of post-medieval orange ware totalling 24 sherds (fabric 90; contexts 101 and 113) and 12 sherds of post-medieval buff wares (fabric 91, contexts 100, 101 and 113). Post-medieval red sandy ware (fabric 78; context 100) was unusually poorly represented with only four sherds identified. While post-medieval red sandy wares are produced throughout the 17th to 18th century, the post-medieval buff and orange wares are more typically of 18th century date. A single sherd of north Devon gravel-free ware (fabric 75.1; context 100) was identified and could also be dated to the 17th to 18th century.

Further post-medieval fabrics within the assemblage included five sherds of creamware (fabric 84; context 100 and 113) dated at the height of its production to 1760-90 and two sherds of white salt glazed stoneware (fabric 84.5; contexts 101 and 113) of mid to late 18th century date.

Fabrics of late 19th to early 20th century date included nine sherds of modern china (fabric 85; contexts 100 and 103), three sherds of porcelain (fabric 83; context 100) and a single sherd of miscellaneous late stoneware (fabric 81.4; context 100).

4.2.2 **Other finds**

A large quantity of iron waste slag was present within the assemblage, with 92 fragments weighing 19.97 kg (contexts 101, 104, 107, 109, 113, 116 and 119). Of these the majority could be identified as tap slag. However, contexts 101, 107 and 116 contain large fragments of hearth slag typical of those encountered from iron furnaces used in the production of wrought iron (Bachman, 1982). The identification of partially vitrified fired clay (contexts 101 and 118) within the assemblage is of some significance in relation to the iron slag and is discussed further below.

Clay tobacco pipe fragments recovered from contexts 100, 101, 113 and 121 were undiagnostic but consideration of the pottery evidence would indicate that they are of 18th century date.

Ceramic building material within the assemblage included fragments of roof tile of 13th to 18th century date (contexts 100 and 101), a fragment of medieval roof tile within context 126 and a fragment of brick (context 100) of 19th to early 20th century date. The assemblage also contained a quantity of animal bone fragments, some exhibiting butchering marks, from contexts 101, 103, 107, 109, 113, 126 and 128.

The remaining finds within the assemblage consisted of an oyster shell (context 100), bottle glass of 18th to 20th century date (context 100 and 101), a bottle base of 18th century date from context 113 (Van den Bossche 2001) and an iron nail from context 101.

5. **Synthesis**

5.1 **Medieval**

The medieval remains on the site probably represent the base of a freestanding shaft furnace (iron bloomery) with possibly the foundation of part of a structure surrounding the bloomery. The surface associated with the bloomery contained pottery from the late 13th-14th centuries. Four dumps of iron smelting waste that the surface overlay are presumably associated with an earlier bloomery on the site. It is difficult to postulate what activity during the medieval period was taking place on other parts of the site, but it is possible that the bloomery was within the rear plot of a medieval building fronting onto Millend Lane. It was often the case in the medieval period that industrial processes were being carried out to the rear of properties fronting onto a street. It is probable that the bloomery went out of use in the later medieval period.

A late 11th to 14th century surface or occupation layer identified in the southern arm of the trench was of an earlier date than the iron smelting waste dumps and several pits were cut into this surface. One of these pits was stone lined, which could have been used for water storage perhaps for use in ironworking processes.

5.2 **Post-medieval**

A layer of demolition material probably represents the destruction of a building in the early post-medieval period. Perhaps this is the demolition material from the structure surrounding the bloomery. After this date the area seems to have become a garden, with a deep soil profile building up over the following centuries.

Cartographic sources indicate that the site has been unoccupied by buildings and undeveloped for the last 170 years. In the area of the trench the archaeological evidence points to limited activity on the site, perhaps only gardening activities in the post-medieval period. However, the evaluation trench was situated towards the rear of the plot and it is possible that a building or buildings were situated on the front of the plot during at least the early part of the post-medieval period.

5.2.1 **The finds**

Terminus post quem dates have been applied to the assemblage (where possible) based on the material recovered and allocated by context group (see Table 3).

The evaluation finds assemblage from Mitcheldean in Gloucestershire is of some significance. While the medieval pottery suggests occupation of the site during the medieval period the presence of various iron furnace slags and partially vitrified clay is indicative of the smelting of iron, most probably during the medieval period. The remaining post-medieval and modern finds assemblage is of less significance and is generally typical of general household rubbish discard during the 18th to early 20th century.

Context 100	Late 19 th to early 20 th century
Context 101	18 th century
Context 102	Possible late 11 th to 14 th century
Context 103	19 th century
Context 107	Possible 15 th century
Context 109	Late 13 th to 15 th century
Context 111	Medieval
Context 113	Mid to late 18 th century
Context 114	Late 13 th to 14 th century
Context 118	Medieval
Context 121	Probable 18 th century
Context 126	Late 13 th to 15 th century
Context 128	Medieval

Table3: Terminus post quem dates by context

6. Significance

6.1 Archaeological

In considering significance, the Secretary of State's criteria for the scheduling of ancient monuments (DoE 1990, annex 4), have been used as a guide.

These nationally accepted criteria are used to assess the importance of an ancient monument and considering whether scheduling is appropriate. Though scheduling is not being considered in this case they form an appropriate and consistent framework for the assessment of any archaeological site. The criteria should not, however, be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

The archaeological remains identified comprise medieval activity in the form of an iron bloomery and possible structure surrounding the bloomery, associated surfaces, pits and dumps of iron smelting waste. A probable early post-medieval demolition deposit and successive garden deposits sealed the medieval features and deposits.

A small clay built freestanding shaft furnace (iron bloomery) would have been used for iron smelting in the Forest of Dean till the early post medieval period. Such remains would be expected in the Mitcheldean area, but there are actually very few excavated *in-situ* examples and so this is a potentially important find. The fill of the unexcavated ovoid feature might seal more of the structure, the base of the furnace, perhaps, but not necessarily, containing a circular slab of solidified slag and iron, and a small pit into which waste molten slag was tapped off from the bottom of the bloomery (pers comm Jon Hoyle).

Given the *high level of survival* of both structural remains and deposits of medieval date the site is thus considered to be of *regional importance* and to have a *high* potential for further information, regarding both the occupation and industrial utilisation of this part of Mitcheldean.

These remains are *vulnerable* to disturbance by development, given their existence at approximately 1.00m below the present ground surface.

7. Recommendations

Archaeological remains of regional importance exist on the site in the form of a medieval iron bloomery. These remains are situated about 1.00m below the present ground surface. Dense undergrowth and a tree preservation order on the site limited the location of the excavation area and it is likely that significant archaeological remains exist in other parts of the site.

If the site is to be developed then it is advisable that a mitigation strategy be formulated to protect the archaeological resource and any further work on the site should be undertaken following advice from a specialist archaeometallurgist who could advise on what it is important to record, retain and look out for in the area of the iron bloomery.

The recommendations above are those of the Service and may vary from those of any archaeological curator or advisor to the planning authority.

8. Publication summary

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological evaluation was undertaken on behalf of Mrs Margaret Elaine Powell on land adjoining Millend House, Millend Lane, Mitcheldean, Gloucestershire (NGR SO 663 185).

One trench was excavated and the base of an iron bloomery of a probable medieval date was uncovered as was the stone foundation of possibly part of a structure surrounding the bloomery. The remains of associated surfaces, pits and dumps of iron smelting waste were also revealed.

A probable early post-medieval demolition deposit and successive garden deposits sealed the medieval features and deposits.

Given the high level of survival of both structural remains and deposits of medieval date the site is thus considered to be of regional importance and to have a high potential for further information, regarding both the occupation and industrial utilisation of this part of Mitcheldean.

9. Acknowledgements

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, Margaret Elaine Powell (the client), John Powell (architectural consultant), Rob Sweet (Countryside Officer, Forest of Dean District Council) and Charles Parry (Senior Archaeologist, Gloucestershire County Council).

10. Personnel

The fieldwork and report preparation was led by Jo Wainwright. The project manager responsible for the quality of the project was Tom Vaughan. Fieldwork was undertaken by Jo Wainwright, Steve Woodhouse and Tom Vaughan, finds analysis by Angus Crawford and illustration by Steve Rigby. Jon Hoyle kindly contributed the information about iron working in the Forest of Dean.

11. **Bibliography**

ASEDGCC, 2007 *Brief for an archaeological field evaluation*, Archaeology Service Environment Department Gloucestershire County Council, unpublished document dated 10th September 2007

Anon., 1963 *Studies in Dean History*, University of Bristol, Dept of Extramural Studies

Bachmann, H, 1982 *The Identification of Slags from Archaeological sites*, Institute of Archaeology, Occasional Publication No. 6: London., University of London.

Blair, J and Ramsay, N, (eds), 1991 *English Medieval Industries*

Bryant, V 2004 *Medieval and early post-medieval pottery in Dalwood*, H, and Edwards, R. *Excavations at Deansway 1988-89*, CBA Res Rep, 139, pp 281-331

CAS, 1995 (as amended) *Manual of Service practice: fieldwork recording manual*, County Archaeological Service, Hereford and Worcester County Council, report, **399**

English Heritage, 2001 *Centre for Archaeology Guidelines: Archaeometallurgy*, English Heritage 2001, **01**

HEAS, 2007 *Proposal for an archaeological evaluation on land adjoining Millend House, Millend, Mitcheldean, Gloucestershire*, Historic Environment and Archaeology Service, Gloucestershire County Council, unpublished document dated 24th September 2007, **P3141**

Historical Metallurgy Society, 1995 *Archaeology Datasheet No 3: Iron working processes*

Historical Metallurgy Society, 1995 *Archaeology Datasheet No 5: Bloomery iron smelting slags and other residues*

Historical Metallurgy Society, 1991 *Policy Document No 2: Metallurgical sites in Britain: priorities for research and preservation*

Hurst, J D, and Rees, H, 1992 *Pottery fabrics; a multi-period series for the County of Hereford and Worcester*, in Woodiwiss, S G (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*, CBA Res Rep, **81**

Hurst, J D, 1994 *Ceramic building material*, in Woodiwiss, S (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*. CBA Res Rep **81**, pp 155-157

IFA, 1999 *Standard and guidance for archaeological field evaluation*, Institute of Field Archaeologists

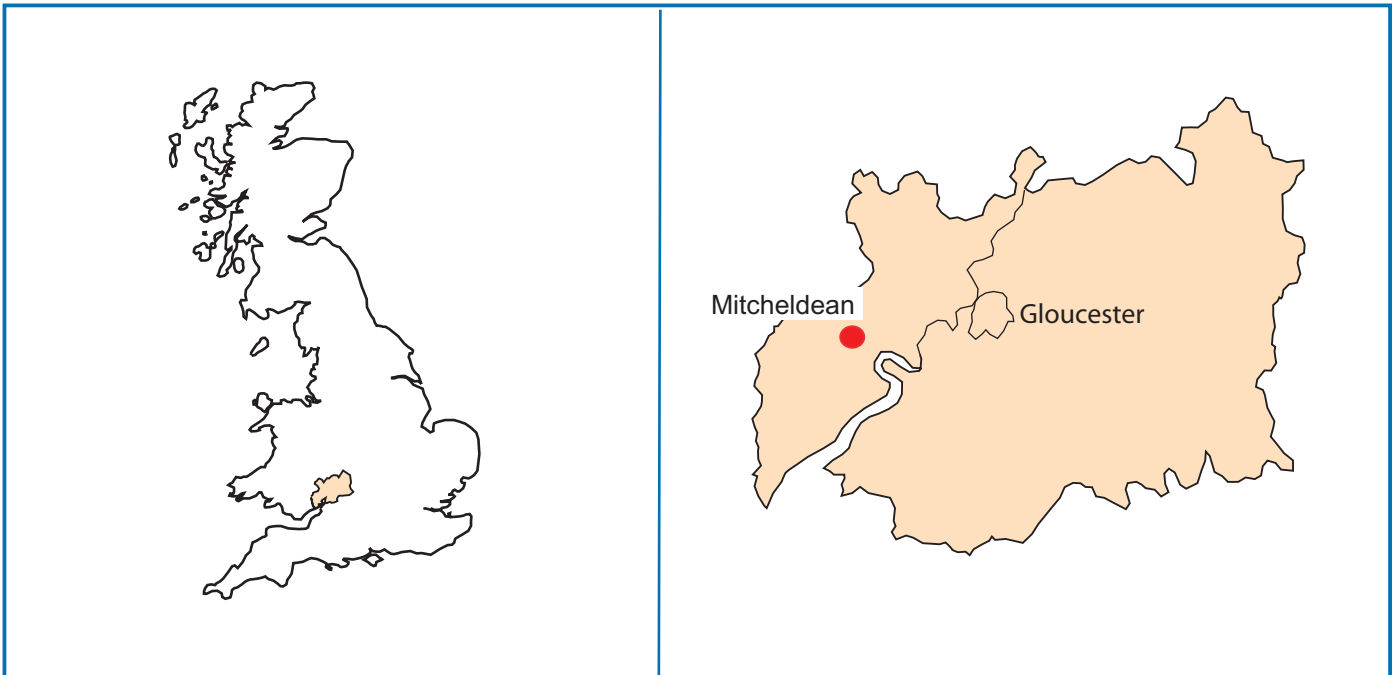
Mason, P, 2001 *A Glance Back at Mitcheldean*

Soil Survey of England and Wales, 1983 *Soils of South West England*, sheet 5, scale 1:250,000 + *Legend for the 1:250,000 Soil Map of England and Wales (A brief explanation of the constituent soil associations)*

Van den Boossche, W, 2001 *Antique Glass Bottles: Their History and Evolution (1500-1850)*, Woodbridge: Antique Collectors Club

VCH V 1996 *Victoria History of the County of Gloucester*, **V**

Figures



© Crown copyright. All rights reserved. Worcestershire County Council 100015914. For reference purposes only. No further copies may be made.

Location of the site.

Figure 1

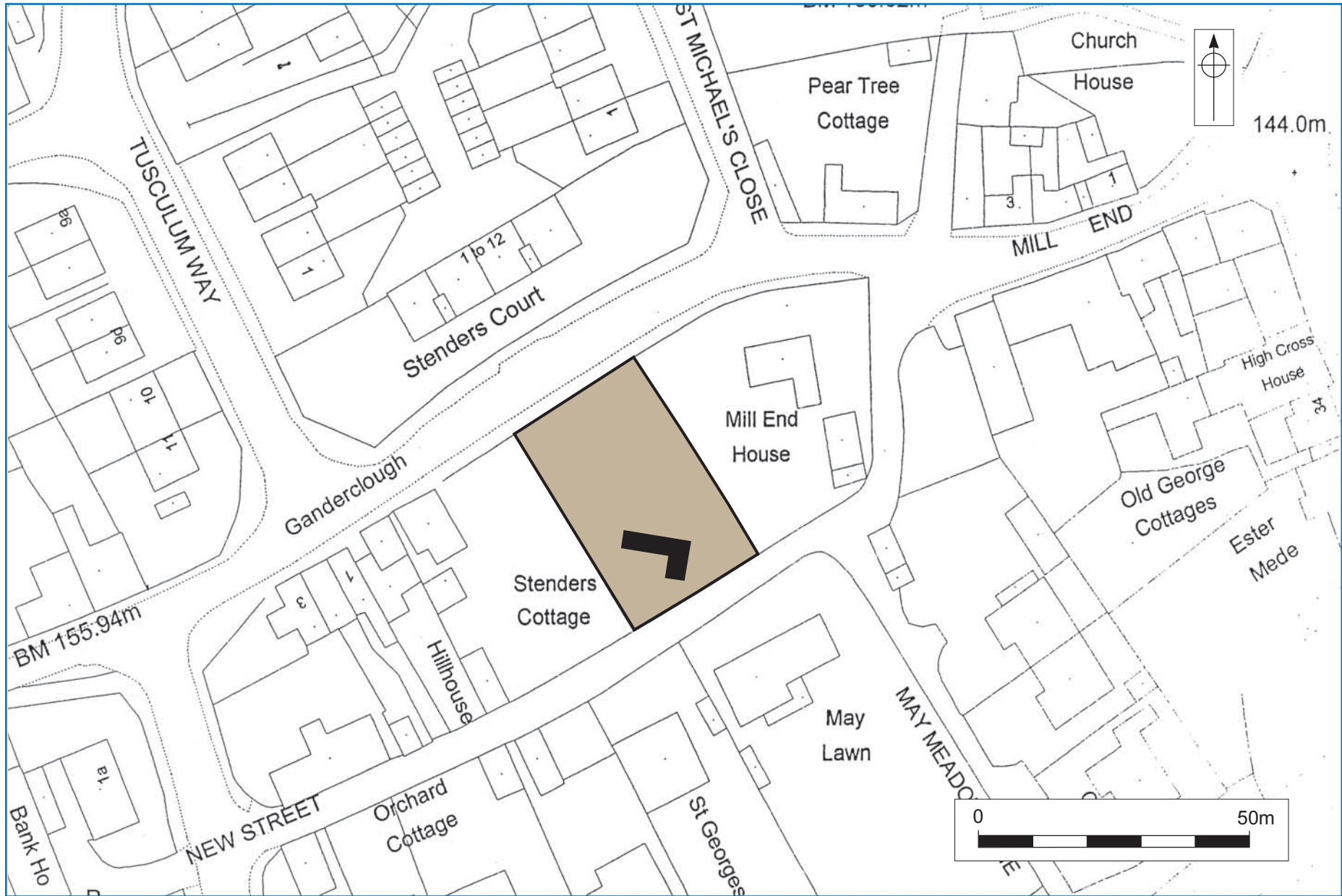


Figure 2: Location of trench

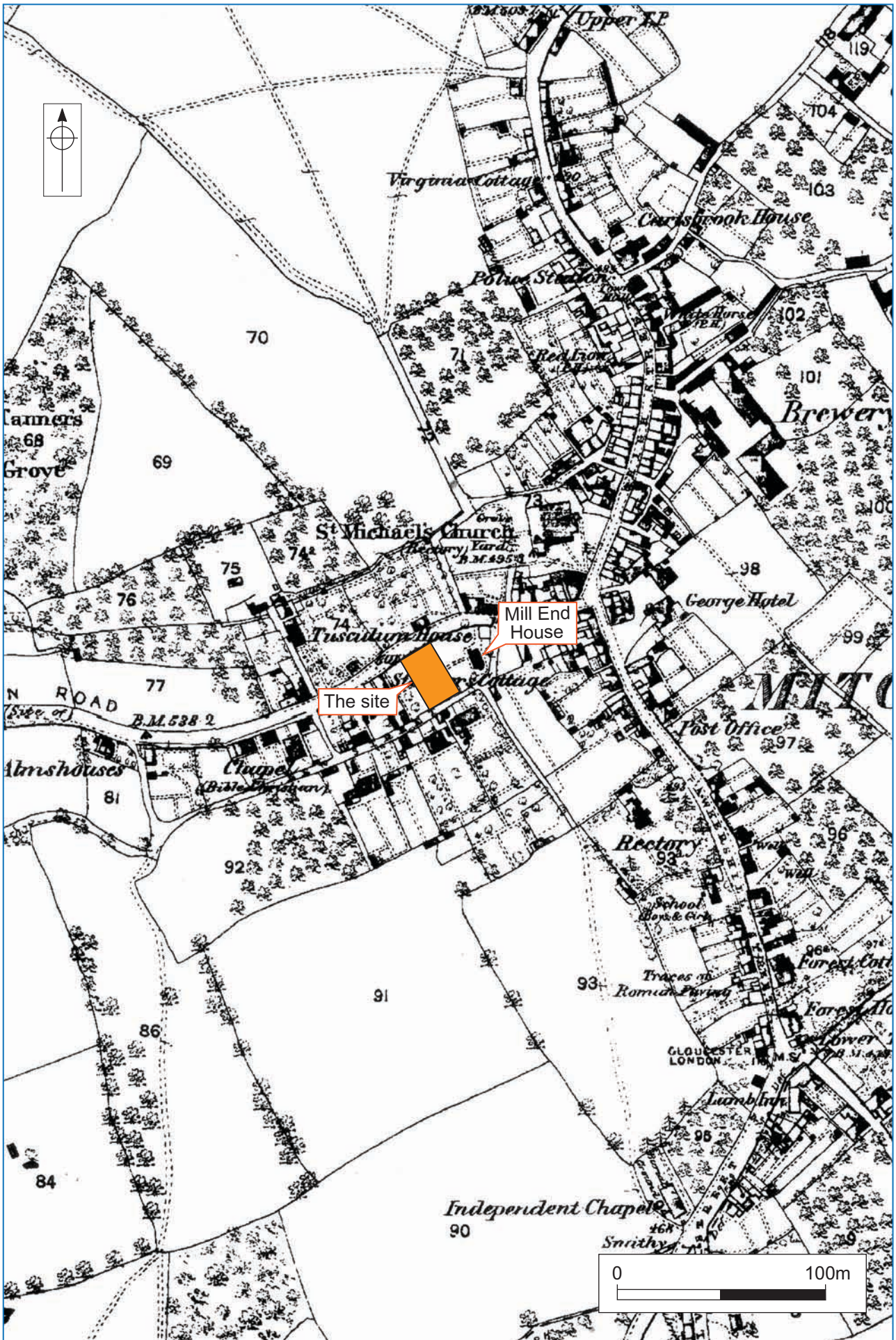


Figure 3: Mill End House, 1880

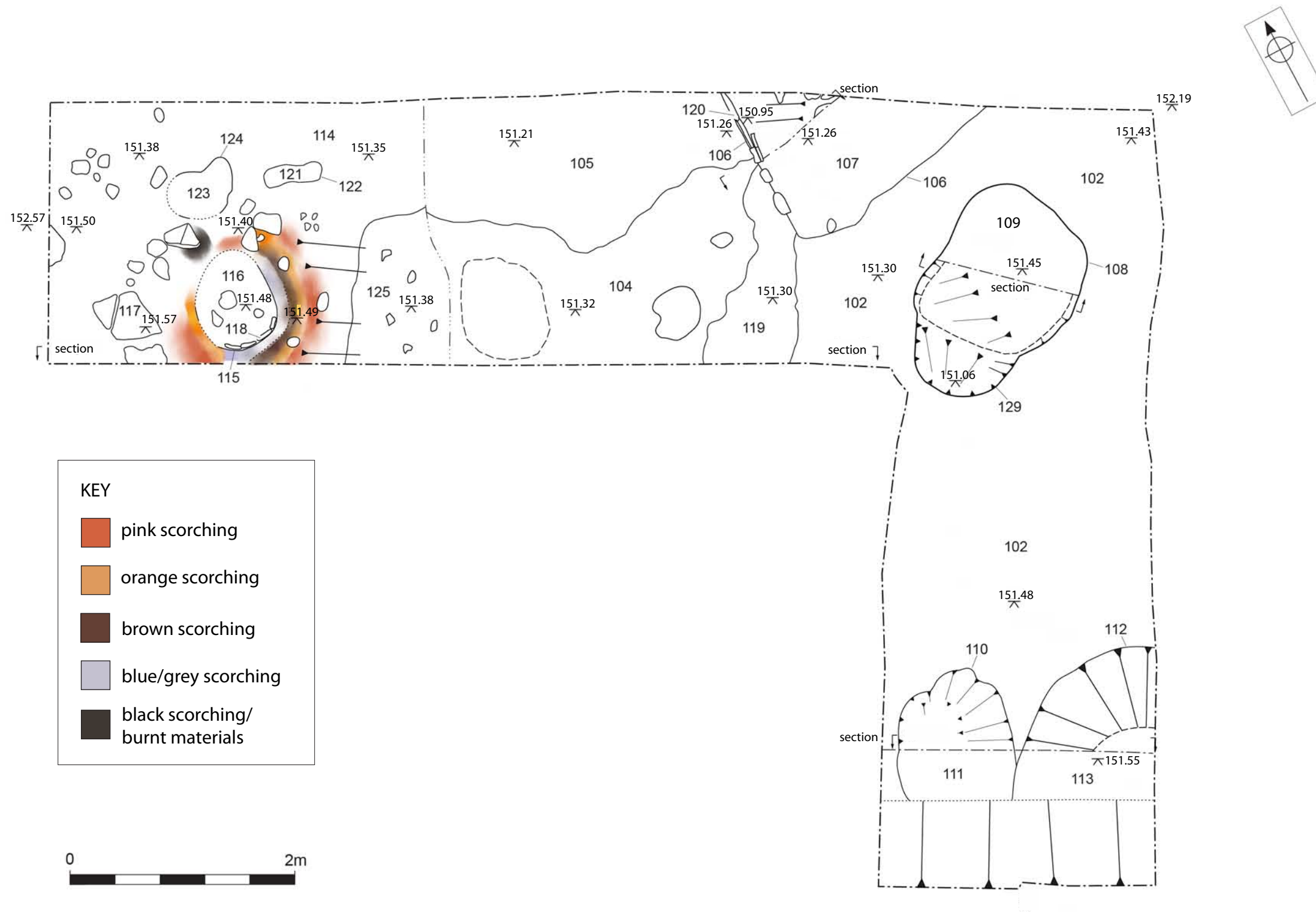


Figure 4: Plan of trench, showing effects of burning

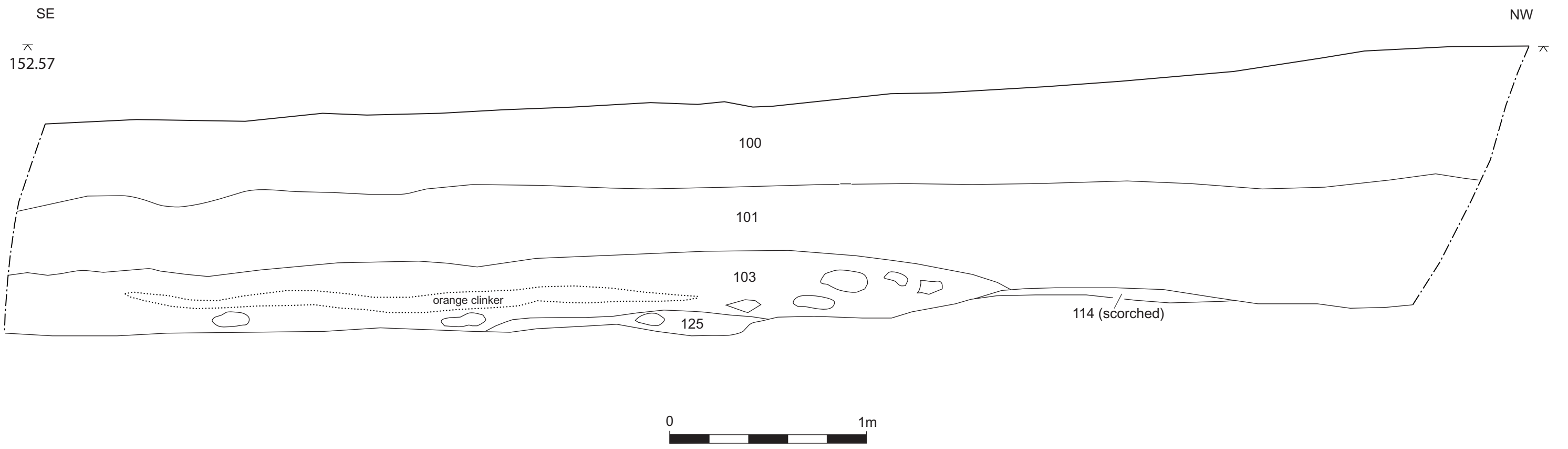


Figure 5: North east facing section of western spur of trench

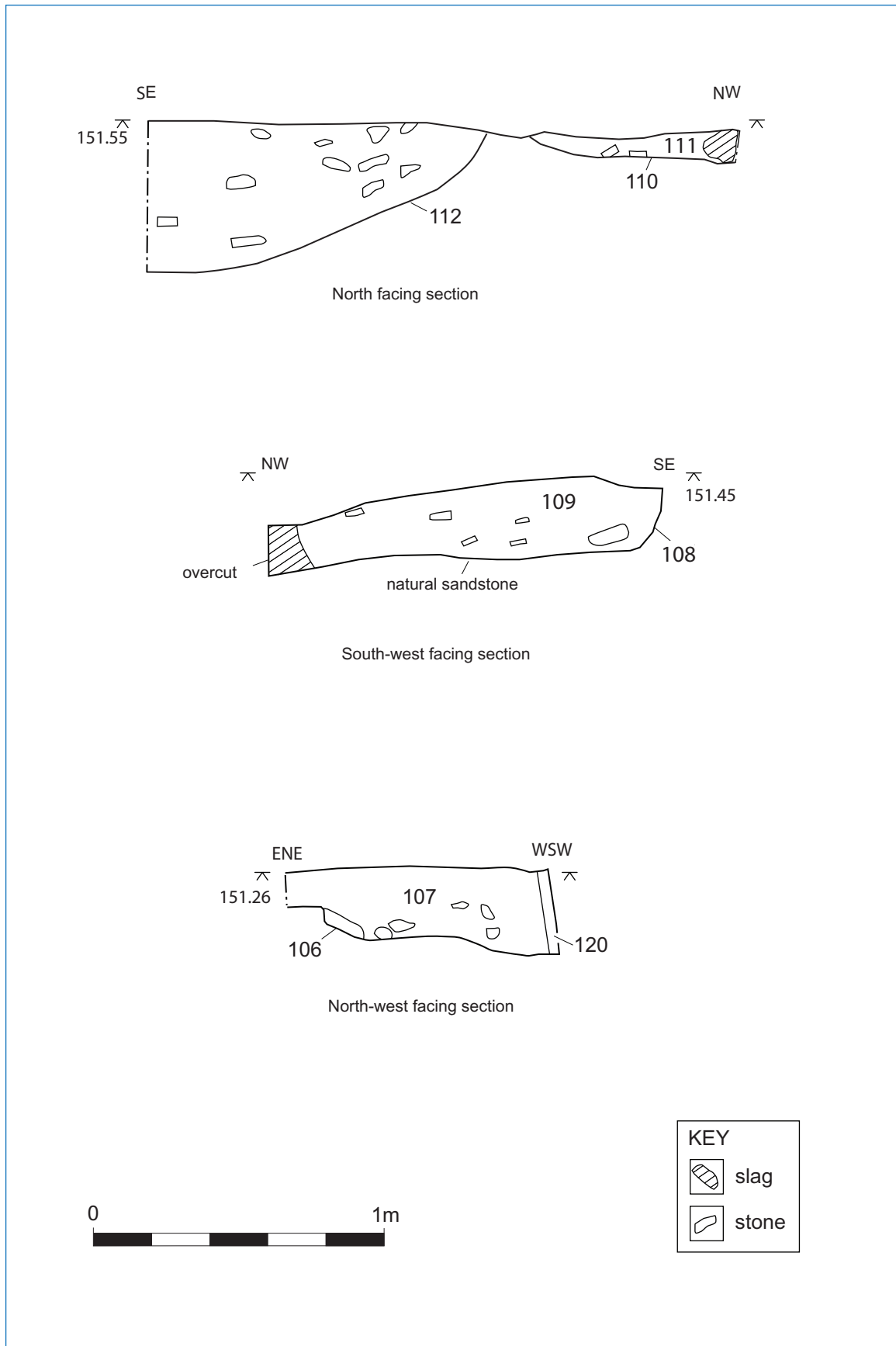


Figure 6: Sections

Plates



Plate 1 View north-east from the bottom of Stenders Hill to Millend, with the site boundary wall to the south-east, c 1905



Plate 2 View south-west from the church tower, with the western extent of the site to the south, c 1910



Plate 3 View south-west of the former Walnut Tree Cottage, partially on the site of the present workshop/garage, c 1920 (with May Lawn house to rear)



Plate 4 View north, southern arm of trench showing medieval ?occupation layer (102) with later pitting



Plate 5 View north-west, showing western arm of trench with iron bloomery in the background



Plate 6 View south-west, showing western arm of trench with dumps of iron smelting waste



Plate 7 View north-west, showing stone lined pit (106)



Plate 8 View east, showing western arm of trench with foundation (117) in bottom right of picture and iron bloomery (115) in top right of picture



Plate 9 View south-east, showing western arm of trench with detail of iron bloomery

Appendix 1 Context description

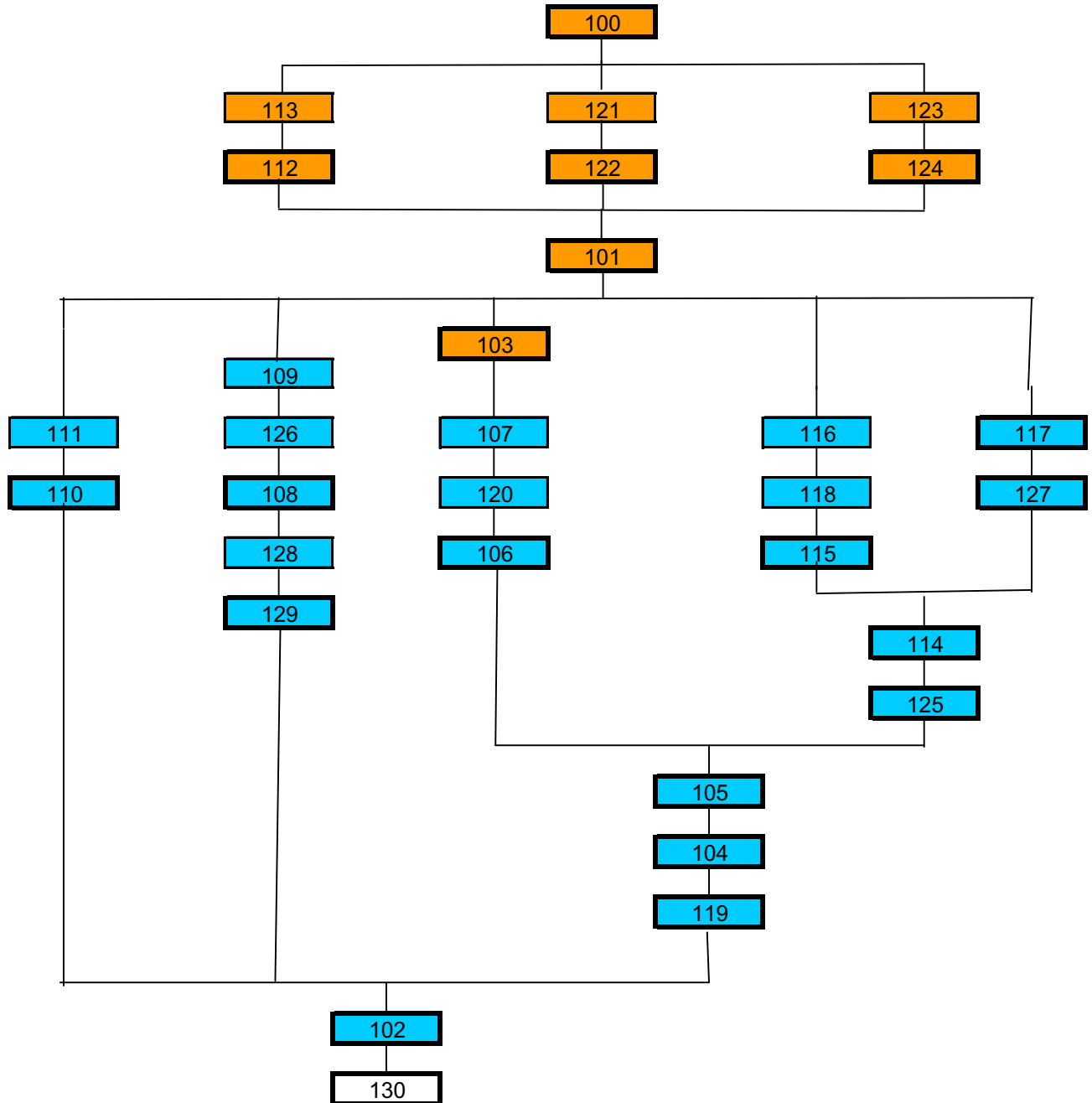
Orientation: L shaped

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
100	Topsoil	Moderately compact dark grey brown sandy silt loam with occasional pottery, bone, coal, iron slag and charcoal. Very disturbed by roots with a diffuse boundary with (101) below	c. 0-29m
101	Earlier soil horizon	Moderately compact light greyish brown sandy silt loam with occasional pottery, clay pipe, bone, coal, charcoal and iron slag. Disturbed by roots with an irregular boundary with (102) below.	c. 0.29- max 1.27m
102	Medieval ?occupation layer	Compact and cohesive light brownish/orangey red fine sand and clay. Occasional medieval pottery, bone, iron slag and sandstone fragments.	0.76m+
103	Demolition spread/dump	Friable sandy silt clay which varies in colour from reddish brown to dark brown. Contained very frequent ?grey forest stone (limestone) and sandstone some of which were squared. Also contained frequent clinker and slag and occasional post-medieval pottery. Below (101).	c. 1.00- max 1.27m
104	Smelting waste dump	Mixed deposit of clinker and iron slag and pinky red to grey brown clay. Contained occasional sandstone fragments and charcoal. Below (105) and above (119)	c. 1.10m+
105	Smelting waste dump	Friable black fine clinker and fine slag waste in a sandy matrix. Contained frequent charcoal. Could possibly have been utilised as a surface.	c. 1.10m+
106	Cut for stone lined pit	Square or rectangular cut with base sloping down to west. Stone lining (120) and backfill (107). Cuts layer (105).	c. 1.00-1.31m
107	Backfill of stone lined pit	Pink to brown sandy silt with frequent ?grey forest stone (limestone) some of which were squared. Also contained frequent charcoal and occasional bone, medieval pottery and iron slag.	c. 1.00-1.31m
108	Pit cut	Sub-circular, vertical sided cut with a rounded break of slope base and slopes down to the north-west. Filled with (109) and (126).	c. 0.95-1.15m
109	Pit fill?	Moderately compact light greyish brown sandy silt loam with occasional post-medieval pottery, Probably the remnants of the layer above, (101) rather than a fill of (108)	c. 0.95-1.00m
110	Pit cut	Sub-circular base of pit with gradual break of slope base and irregular base. Filled with (111).	c. 1.00-1.10m
111	Pit fill	Mid brown grey loose sandy silt with frequent green sandstone fragments and iron slag. Contained medieval pottery.	c. 1.00-1.10m
112	Pit cut	Probable circular cut with near vertical sides and a rounded base. Filled with (113).	c. 1.00-1.60m
113	Pit fill	Grey to dark brown loose sandy silt with frequent angular stone and iron slag. Other inclusions included occasional post-medieval pottery and tile.	c. 1.00-1.60m
114	Medieval layer/surface	Reddish brown firm clay loam with frequent charcoal, clinker, iron slag and sandstone fragments. Occasional medieval pottery. Cut by Furnace (115). Above iron slag dump (125).	1.07m+
115	Cut for furnace	Sub-circular cut into (114) with a diameter of about 0.75m. Area around cut has been scorched by heat from furnace. Filled with backfill (116) and possible	1.10m+

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
		lining (118).	
116	Backfill of furnace	Mixed matrix of pink and red brown silty clay with moderate sandstone fragments, iron slag, charcoal and pebbles. Fill of (115).	1.10m+
117	Foundation for ?wall	Two squared ?grey forest stone (limestone) blocks aligned roughly north-south. Bonded with a reddish silty clay.	1.10m+
118	Possible lining to furnace	Vitrified material, either slag adhering to side of cut for furnace (115) or lining of the furnace.	1.10m+
119	Smelting waste dump	Reddish brown silty clay with very frequent iron slag and clinker. Underlies (104).	c. 1.10m+
120	Stone lining to pit	Vertical positioned ?grey forest stone (limestone) against western edge of cut (106)	c. 1.00-1.31m
121	Fill	Dark black organic silty clay with frequent charcoal. Fill of (122).	1.07m+
122	Tree root?	Irregular shaped cut which is probably the remains of a tree root. Seen cutting (114) but must have been cutting from higher up.	1.07m+
123	Fill	Reddish brown friable silty clay with frequent clay and small sandstone fragments. Fill of (124).	1.07m+
124	Tree root?	Irregular shaped cut which is probably the remains of a tree root. Seen cutting (114) but must have been cutting from higher up.	1.07m+
125	Smelting waste dump	Mid grey brown silty clay with frequent sandstone fragments, moderate clinker/iron slag and occasional bone, clay fragments and pebbles. Underlies (114) and over (105).	1.10m+
126	Pit fill	Plastic reddish brown sandy silt with frequent green sandstone, iron slag. Occasional medieval pottery. Fill of (108).	1.00-1.15m
127	Construction cut for wall	Linear cut containing (117). Unsure of northern extent.	1.10m+
128	Pit Fill	Compact reddish brown sandy silt with frequent green sandstone, iron slag and charcoal. Occasional medieval pottery. Fill of (129).	c. 0.95-1.20m
129	Pit cut	Sub-circular cut with concave sides and base which slopes down to south-west. Filled with (128).	c. 0.95-1.20m
130	Natural	Firm red/pink clay and pink sandstone bedrock. Only seen in bases of pits (106), (108), (112) and (129).	1.15m+

Appendix 2 The matrix



Post-medieval contexts are coloured orange and medieval contexts are coloured blue.

Appendix 3 Technical information

The archive

The archive consists of:

- 5 Fieldwork progress records AS2
- 1 Photographic records AS3
- 78 Digital photographs
- 1 Drawing number catalogue AS4
- 1 Context number catalogue AS5
- 1 Matrix sheet AS7
- 1 Levels record sheet AS19
- 16 Abbreviated context records AS40
- 1 Trench record sheet AS41
- 6 Scale drawings
- 1 Box of finds
- 1 Computer disk

The project archive is intended to be placed at:

Cheltenham Art Gallery and Museum
Clarence Street
Cheltenham
Gloucestershire
GL50 3JT

Tel. Cheltenham (01242) 237431
Fax Cheltenham (01242) 262334
