

Archaeological watching brief of restoration works on lime kilns at Abberley Hall, Abberley, Worcestershire



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Graham Arnold and Tom Vaughan

With contributions by Rob Hedge

Background information

<i>Client</i>	Nick Reading (project manager, for the Abberley Hall Foundation)
<i>National Grid reference</i>	SO 7450 6615
<i>Historic Environment Record reference</i>	WSM 66624
<i>Project design</i>	WA 2012
<i>Project parameters</i>	ClfA 2014

Background

Worcestershire Archaeology were invited to monitor the excavation and restoration works of the south of two 19th century lime kilns, to the south of Abberley Hall, Abberley, Worcestershire (SO 7450 6615, WSM 66624). An initial site visit and survey was undertaken by Rob Hedge (MA Cantab), in advance of the restoration works. Graham Arnold (BA MSc) then made further site visits during the works to record the condition, extent and structure of the southern lime kiln.

The second lime kiln adjacent, to the north, was not restored due to the poor state of preservation and the damage caused by the landslip due to tree roots.

The lime kilns (WSM 45950) are first recorded on the 1st edition Ordnance Survey map of 1885, although the 1903 edition shows them in more detail (Fig 1). The Historic Environment Record (HER) entry describes the site as follows:

Two lime kilns are built into the hillside to the south of the house. They consist of two brick vaulted chambers with brick arches to the front and flanked by stone rubble walls, modifying the natural slope of the ground. It is likely that the kilns were built in the 1880s, and used to burn limestone. One of the kilns is in fairly good condition, the brick arch being intact, although there is some minor damage to the brickwork, and some cracking at low level. The flanking stonework has suffered from washing out of mortar, but there is no obvious displacement.

The second kiln has been filled in, possibly by a landslip, which has also taken off the face of the brick arch.

The lime kilns at Abberley are discussed in detail in a study on Worcestershire lime kilns (Wilkes 2015), as follows:

The limekilns are situated in the grounds of Abberley Hall School and are not complete due to the ground above being filled in. It is not possible to tell whether the brick lined pots are still there below the surface, only excavation will provide the answer. The arches of the draw holes measure 2.2 metres across and the recess is 3.0 metres to the back. They are built from brick but the facing wall that links the two kilns are constructed from undressed limestone blocks. The right hand [north] draw hole is in poor condition with soil covering all but the spring of the arch. It is thought that these limekilns may have been built in the 1880s.

The Tithe Award for Great Witley in 1838 makes no reference to the presence of lime kilns at this site and similarly, when the Abberley Hall and Elms Estate was the subject of a sale in 1866, the plans accompanying the sale details did not indicate the presence of limekilns

on the estate either. The first indication of these particular limekilns is when they appeared on the Ordnance Survey County Series 1st edition maps of 1885. However, the 1861 census records that Thomas Edwards, a lime burner, was lodging at Walsgrove Farm which is close to both the lime kilns and the quarries. Based on the assumption that lime burners needed to be close to hand when the kilns were burning, it would seem probable that Thomas was operating these kilns.

The limestone was quarried from adjacent woodland to the west and the larger quarry to the south (Wilkes 2015, 11).

The Ordnance Survey map of 1954 shows the outline of the bank and both pots, indicating that they were still visible at this time. The maps of 1972 and later only show the partial outline of the bank, indicating that the lime kilns had probably been fully infilled and obscured by vegetation by this time.

Aims

The aim of the watching brief project was to observe and record the excavation of a backfilled lime kiln pot and restoration of the vault and archway of the southern kiln. It was a rapid watching brief of the initial exposure of the structure prior to consolidation and repairs.

Methods

General specification for fieldwork

WA 2012

Sources consulted

HER Record

Sources cited by the HER (see Bibliography)

1st edition Ordnance Survey County Series map, 1885, scale 25":1 mile

1903 Ordnance Survey County Series map, scale 25":1 mile (Fig 3)

1954 Ordnance Survey map, scale 6":1 mile

1972-3 Ordnance Survey, scale 1:2,500

2003 Ordnance Survey

Dates of fieldwork

22 and 30 April 2015

Area of site

c 250m²

Dimensions of excavated areas observed (Fig 2)

Lime kiln pot diameter 3.00m

depth 4.00m

Lime kiln vault length 3.00m

Draw hole width 2.20m

height 2.15m

Access to or visibility of deposits

Observation of the excavated areas was undertaken during and after hand excavation of the pot. Access to deep trenches was not made for safety reasons.

Statement of confidence

Access to, and visibility of, deposits allowed a high degree of confidence that the aims of the project have been achieved.

The description of the kiln structure and associated deposits' specific details is given in Appendix 1. Plates following progress of the works are included (Plates 1 -15).

Artefacts, by Rob Hedge.

A sample of the artefactual material recovered from the backfill of the pot of the lime kiln was inspected.

The majority of the material comprises glass and ceramic vessels dating to the early and mid-20th century. The complete or near-complete condition of a high proportion of vessels indicates that the kiln pot was a primary dumping ground for domestic rubbish. The vessels that can be readily dated indicate that the material dumped at this location originated between the late 1920s and late 1950s. Of particular note are:

- a) an unusual glass bottle marked 'Burgess Stone Ginger Beer', manufactured by Burgess (Minerals) Ltd of Luton: the bottle has been transfer-coated from base to neck in a matt off-white paint blending to dull orange at the neck, evidently to mimic the appearance of a stoneware bottle;
- b) a small yellow-glazed earthenware French pate terrine, stamped 'TERRINE BREVETEE LE CACHET' on the base;
- c) a distinctive opaque white glass 'Odol' mouthwash bottle with a Bakelite screw cap indicating manufacture in the late 1920s to 1940s;
- d) a small cobalt blue 'BOURJOIS' perfume bottle, of the type used for the company's signature (and hugely popular) scent 'Evening in Paris': the screw thread indicates a 1940s or 1950s date;
- e) a variety of clear glass meat and fish paste jars including 'SHIPPAM'S' and 'PECK'S' jars of 1920s to 1950s date;
- f) a fragment of a 1920s to 1940s art deco 'Warwick' bowl manufactured by Mintons for Lawley's of Regent Street;
- g) a white opaque glass jar of 'POND'S' cosmetic cream, lid intact;
- h) vessels containing a variety of medicines and remedies including Dettol, CALIFIG (a California Fig Syrup marketed as a constipation remedy), PHOSFERINE (a nerve tonic) and a medicated shampoo promising to be effective against dandruff;
- i) a small clear glass bottle of 'DADDIE'S' sauce;
- j) a clear glass bottle originally containing food colouring marketed by 'AB MARSHALL LTD LONDON';
- k) a wide variety of brown glass BOVRIL and MARMITE jars in sizes of 16oz, 8oz, 4oz, 2oz, 1oz and '1d'; and,
- l) a small clear-glass ink-pot.

Description and discussion

Worcestershire Archaeology was invited to monitor the restoration works taking place of the southern of two of the lime kilns on Abberley estate. The pot was completely filled in. A small section of brick rim was visible on the first site visit.

Evidence of the historic track ways for the delivery and extraction with banking and earthworks was visible on site, as depicted on the 1903 Ordnance Survey map (Fig 3).

The backfill included loose, mixed soil from the woodland, with extensive glass bottles, porcelain and metal work dating to the early and mid 20th century. The glass jars, bottles and plates were retained for the school.

The lime kiln pot measured 2.50m internally and 3.00m externally, funnelling down 3.20m to a box at the base which measured 0.55m in width, 1.00m in length and 0.50m in depth. The bricks in the inside of the pot were coated in a lime slurry clearly demonstrating its former industrial use.

The bricks used to construct the lime kiln pot and floor measured 9" x 3 ½ " x 3" (inches), typical of a late 19th century date. The floor bricks were laid in a stretcher form and showed signs of extreme heat as a kiln, which were often fired to temperatures of over 900° centigrade (Wilkes, 2015, 7).

The vault of the draw hole measured 2.20m in width, 3.00m in depth and 2.15m in height and was constructed of brick, limestone and had a solid smooth stone or concrete floor.

Conclusions, by Graham Arnold, Rob Hedge and Tom Vaughan

The restoration works at Abberley Hall have allowed a rare insight into the working interior of a mid-late 19th century lime kiln, its disuse and backfilling during the mid 20th century. Although the exposed western elevation of the kilns in particular was found to be in a poor state, the interior of the brick-lined pot was in a good state of preservation.

The finds from the pot indicate that the kilns were casually infilled with domestic rubbish, probably over a prolonged period of time, between the late 1920s and late 1950s. This interpretation is consistent with their appearance on the 1954 Ordnance Survey map but not on the subsequent 1972 map, indicating that by the later date they had been completely infilled and become overgrown.

Publication summary

Worcestershire Archaeology has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, Worcestershire Archaeology 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 watching brief was undertaken on behalf of Abberley Hall Foundation, at the bank of the lime kilns south of Abberley Hall, Abberley, Worcestershire (NGR SO 7450 6615; HER ref WSM 66624). The southern of two mid-late 19th century lime kilns was undergoing restoration works, including the excavation of the in-filled brick-lined pot, and repointing of the draw hole vault and arch. The progress of the works was monitored, photographed and recorded by which demonstrated that the internal structure of the southern lime kiln was in good condition. The finds from the backfill of the pot indicate that the kilns were casually infilled with domestic rubbish, between the late 1920s and late 1950s. This interpretation is consistent with their appearance on the 1954 Ordnance Survey map but not on the subsequent 1972 map, indicating that by the later date they had been completely infilled and become overgrown.

Acknowledgements

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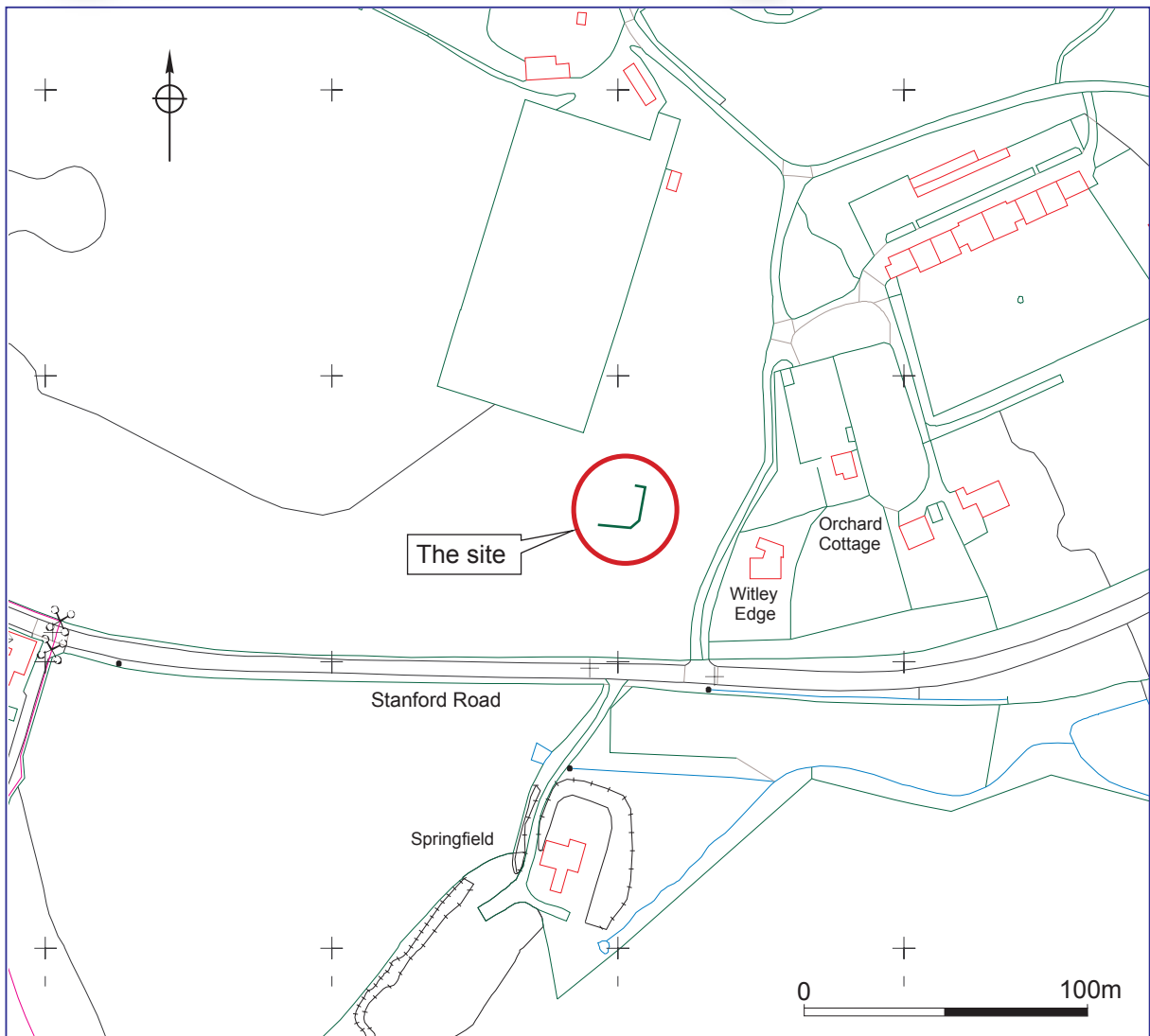
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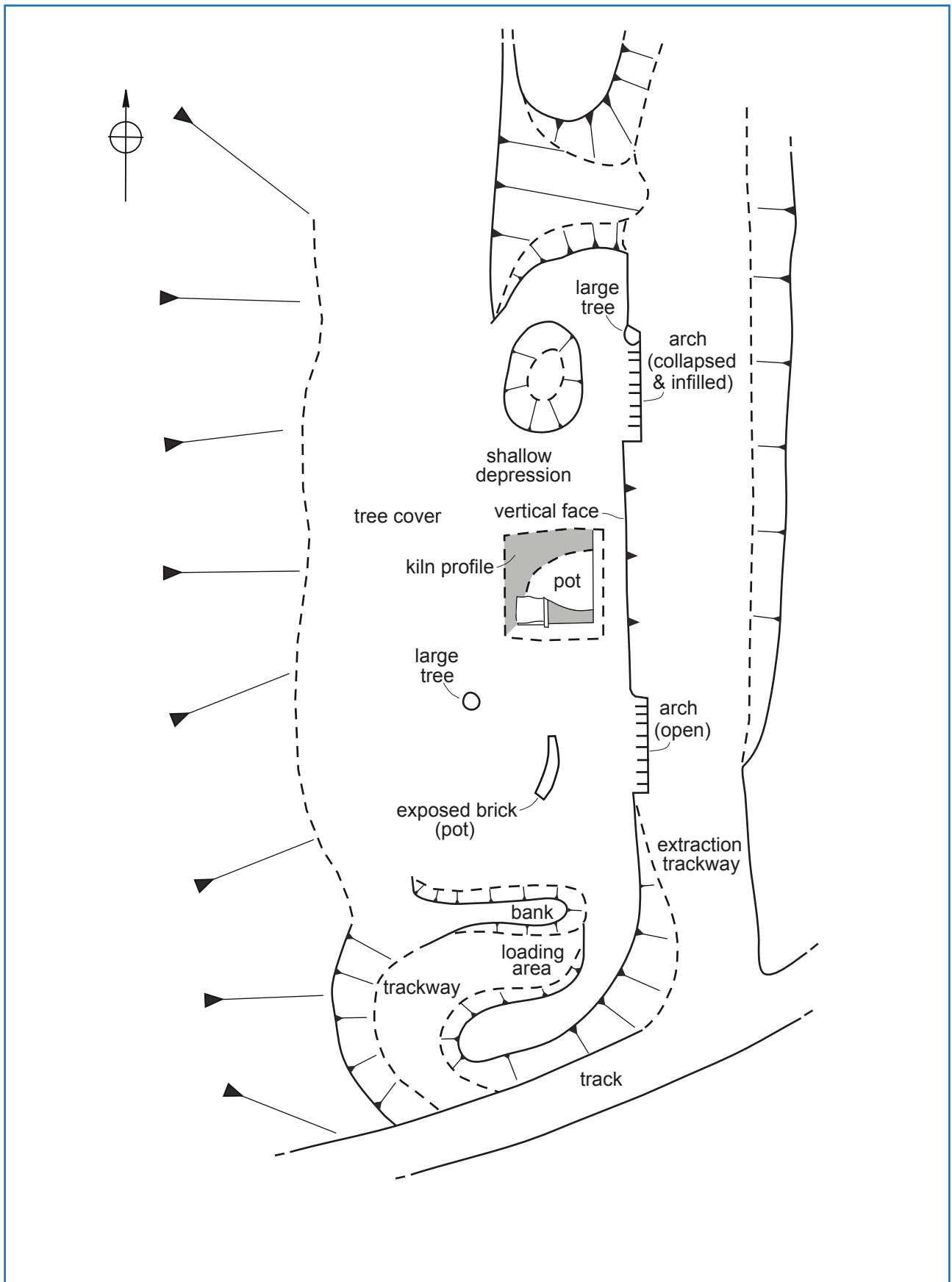
Figures



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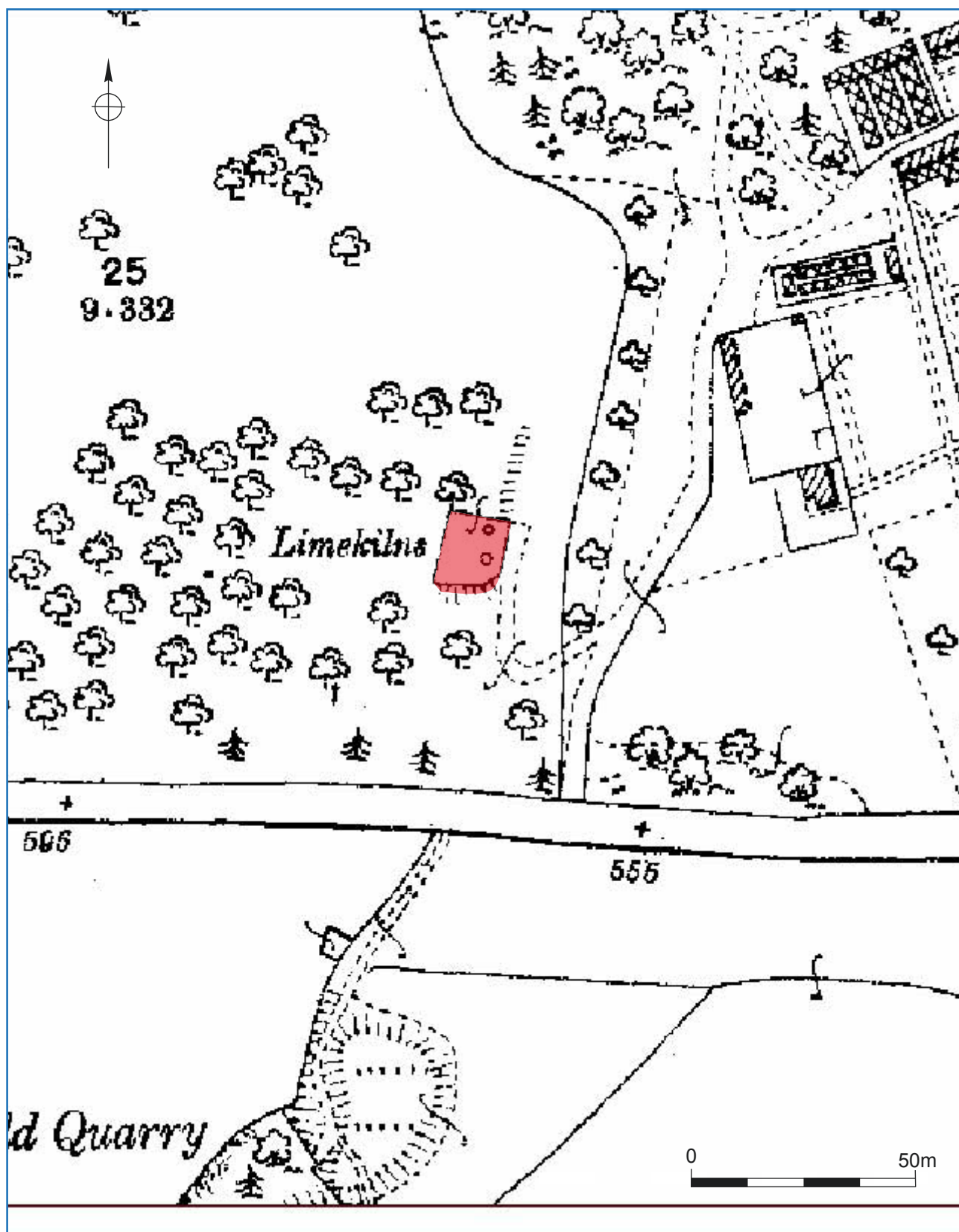
Location of the site

Figure 1



Sketch plan (not to scale)

Figure 2



1903 Ordnance Survey showing kilns

Figure 3

Plates



Plate 1 View of the lime kiln being restored from the road to the east



Plate 2 The south lime kiln due to be restored, view from the south-east (1m scales)



Plate 3 The collapsed lime kiln to the north(1m scales)



Plate 4 View of the two lime kilns during restoration works, looking south



Plate 5 The entrance to the draw hole prior to restoration works (1m scales)



Plate 6 The fire-box for the brick lined pot prior to restoration works (1m scale)



Plate 7 Detail of the entrance of the fire-box brick lined pot after excavation (0.5m and 1m scales)



Plate 8 The entrance of the fire-box brick lined pot after excavation (0.5m and 1m scales)



Plate 9 The northern side of the lime kiln draw hole recess condition prior to restoration (1m scale)



Plate 10 Damage to the brickwork on southern side of the draw hole recess (1m scale)



Plate 11 The first course of bricks of the lime kiln pot exposed (1m scale)



Plate 12 The lime kiln pot fully excavated with lime slurry covering the bricks



Plate 13 A selection of bricks and rubble from the fill of the lime kiln pot



Plate 14 Spoil from the backfill of the lime kiln pot including metal work and glass



Plate 15 Sample of glass bottles and jars from the backfill of the lime kiln pot (0.20m scale)



Plate 16 Sample of ceramics and metal buckle from backfill of lime kiln pot (0.20m scale)

Appendix 1 Trench descriptions

Trench 1

Maximum dimensions: Length: 6.00m Width: 3.00m Depth: 4.00m

Orientation: East facing lime kiln

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
100	Topsoil / mulch	Friable dark blackish brown humic silt and root material from woodland floor. Sedimentary material overlying lime kiln pot structure.	0 – 0.30m
101	Fill of Kiln pot	Mixed rubble, rubbish and debris with similar make up to topsoil mulch but including metal work, bricks, limestone, glass bottles and jars. 20 th century material.	0.30 – 4.00m
102	Kiln Pot	2.50m diameter brick-lined kiln pot, creating a funnel down to the firebox and draw chamber. Bricks measure 9" x 4" x 3". Internal side of bricks often covered by lime slurry.	0.30 – 4.00m
103	Fire Box and Brick Floor of Kiln	1.00m x 0.55m x 0.50m entrance to kiln pot. Brick floor with bricks measuring 9" x 3 ½" x 3"	-
104	Lime Kiln Draw Hole Vault	3.00m (l) x 2.20m (w) x 2.15m (h). Limestone and brick vaulted structure with a solid stone / concrete floor.	-
105	Lime Kiln Arch	See photographs of Lime Kiln frontage	-

Appendix 2 Technical information

The archive: (site code: WSM 66624)

The archive consists of:

4	Context records AS1
1	Field progress reports AS2
1	Photographic records AS3
91	Digital photographs
2	Scale drawings
1	Trench record sheets AS41
1	Computer disk
1	Copy of this report (bound hard copy)

The project archive is intended to be placed at:

Worcestershire County Museum
Museums Worcestershire
Hartlebury Castle
Hartlebury
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Tel Hartlebury (01299) 250416