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Manor Farm, Wall, Staffordshire: An Archaeological Watching Brief. 2003 An Updated Report

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An Updated Report

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SUMMARY

In September 2003 an archaeological watching brief was undertaken at a proposed farm composting site at Manor Farm, Wall, Staffordshire. The site lies adjacent to the Roman road Ryknild Street and c. 1.5 km east of the Romano-British town of Wall, itself on Roman Watling Street. Recent excavations on the Birmingham Northern Relief Road had also produced Romano-British archaeology. Therefore, although no known archaeology had previously been identified on the site, the potential for archaeological remains was considered strong enough to warrant a watching brief.

No Romano-British archaeology was recorded. However, a discreet group of features filled with heat fractured stone was excavated and produced a mid-Late Iron Age radiocarbon date. This, together with the morphology of the feature group contrasts with burnt mound sites found elsewhere in the West Midlands, although parallels for the use of burnt stone in this period can be found in Staffordshire.

1.0 INTRODUCTION

The archaeological watching brief at Manor Farm, Wall, Staffordshire (NGR 411200/306600 & Fig. 1) was undertaken in accordance with a written scheme of investigation prepared by Birmingham Archaeology on behalf of the client, Mr A. J. Ryman, for Stafford County Council Historic Environment Team. The watching brief was designed to monitor the removal of topsoil over an area of *c*.6000m², down to the uppermost archaeological horizon. In the event of encountering archaeological deposits a mitigation strategy was to be negotiated between the curator and the client.

2.0 ARCHAEOLOGICAL BACKGROUND

A Roman fort at Wall is thought to have been established around AD 60, *c*.750m northwest of the junction between Watling Street and Ryknild Street Roman roads (Fig. 2; Wardle 2003a, 11). Further phases of the fort may have continued into the 2nd century AD (Jones 1998, 1). A large triple ditched enclosure straddling Watling Street is considered to date from the late 3rd to 4th centuries AD (Wardle 2003a, 12; Jones 1998, 1). Further civilian activity dating from the early-mid 2nd century AD through to activity in the late 2nd and early 3rd centuries AD has been identified to the southeast of the forts to the east of the junction with Ryknild Street (Fig. 2; *ibid*. 3). Such activity may suggest that Romano-British occupation extends further northeastwards into the area of the development site. This potential is highlighted by the recent discovery of a previously unknown Romano-British cemetery to the southeast discovered during the construction of the Birmingham Northern Relief Road (Wardle 2003a, 12).

3.0 METHODOLOGY

The area of the proposed composting site was stripped with a toothless ditching bucket and stripped surfaces were prevented being tracked over or driven upon, in accordance with the written scheme of investigation. Possible archaeological features were marked on the ground and recorded on a location plan. Colour and black and white print photographs were also taken during the topsoil stripping.

A mitigation strategy was negotiated on the identification of archaeological features. A second archaeologist was employed to investigate these features while the topsoil strip continued to be monitored. The archaeological features were excavated in selected sections, a 1:20 scale plan and section drawings were produced together with colour and black and white print photos. Bulk samples were taken for the assessment of palaeoenvironmental plant remains, and for radiocarbon dating.

4.0 ARCHAEOLOGICAL RESULTS

The ploughsoil was removed to a depth of *c*.0.45m across the site. This horizon (1000) was made up of an orange-brown silty clay, sub-rounded pebbles with occasional brick and tile fragments. The ploughsoil was removed to the upper surface a light brown-orange sandy clay subsoil (1001) with sub-rounded pebbles (Plate 1).

Three archaeological features were identified during the topsoil stripping of the site (Fig. 3). The first feature (F100), was a shallow gully 11.0m in length and 0.2m in depth, orientated northwest-southeast (Fig. 4; Plates 2 and 3). The feature was filled with a light grey-brown silty clay (1002) with charcoal fragments (*c*.5%) and a large quantity of red, purple and blue-grey angular heat fractured stones (*c*.25%) 0.03-0.06m in length (Fig. 5; Plate 3). The quantity and density of heat fractured stone and charcoal diminished towards the northwest and southeast ends of the linear feature. F100 was subdivided into excavated sections numbered F100-F100.03, filled by contexts (1002), (1004), (1006) and (1008).

Two further features (F101) and (F102) were recorded to the west of F100 (Fig. 4). F101 was a shallow sub-circular feature *c*.1.5m in diameter and 0.08m in depth. This feature was filled with a light orange-brown silty clay (1005) with occasional charcoal flecks and a large quantity (*c*.50%) of heat fractured stone (Fig. 5; Plate 4). F102 was also a shallow sub-circular feature *c*.1.0m by 1.3m and 0.06m in depth. The feature was filled with a light orange-brown silty clay (1007) and a large quantity (*c*.50%) of heat fractured stones (Fig. 5; Plate 5). No archaeological finds were recovered from these features. It is likely that F101 and F102 and therefore F100 have been substantially truncated by modern land-use regimes.

These features have been interpreted as the remains of prehistoric settlement activity and are compared with a number of sites in the West Midlands and Britain in the discussion below. A charcoal sample was chosen (Sample 1, 1002) for radiocarbon dating on the basis of the quantity of charcoal in the sample and the central position within the linear feature of the section F100. The environmental sampling and charcoal processing results are described below.

5.0 ENVIRONMENTAL SAMPLING RESULTS by Wendy Smith

Five samples were collected for archaeobotanical analysis during the course of excavations. Four samples were collected from a linear feature (Sample 1, F100, Sample 2, F100.01, Sample 4, F100.02 and Sample 5, F100.03) and the fifth sample was collected from a shallow sub-circular feature F101.

This analysis is designed to determine if charred plant remains are present and of interpretable value. In addition, it aims to determine the potential for the charred plant remains to answer the following questions:

- Do any of the plant remains recovered provide information about agricultural practices?
- Do the assemblages recovered provide information about rubbish disposal patterns on site?
- Do any of the plant remains recovered provide information about the wider environment of the site?

Ten litre samples were processed using the wash over technique. The flots (the material which floats) were sieved to 0.5 mm and were air-dried. The heavy residues (the material which does not float) were not available for analysis and, therefore, the results presented here are based entirely on the flots. The author analysed charred plant remains from the flots using a low-power binocular microscope at magnifications between x12 and x40. Comparative material from the author's personal collection was consulted for the analysis.

The results for charred plant remains from the site are presented in Table 1, which also includes a semi-quantitative record of any other environmental remains (bones, molluscs or charcoal) observed during the analysis of this material. Nomenclature for economic plants follows Zohary and Hopf (2000) and nomenclature for indigenous taxa follows Stace (1997).

Only three samples (Samples 1, 2 and 4) contained small quantities of charred plant remains, which are not of interpretable value. However, the recovery of free-threshing wheat (*Triticum* sp.) grain and rachis nodes in all three of the samples suggests that the features excavated may not be securely prehistoric. Free-threshing wheat would not have occurred in Britain until the first or second millennium AD and, therefore, these deposits are either not prehistoric or are contaminated by material from later periods. All of the samples contained modern root and seeds (namely sedge (*Carex* sp.), goosefoot (*Chenopodium* sp.) and orache (*Atriplex* sp.). This suggests that the deposits are quite near the modern topsoil level and likely to suffer from bioturbation (reworking of deposits by modern insects, rodents, worms, etc.).

The results from this analysis are not of interpretable value but do suggest that the deposits sampled are not securely prehistoric or may be contaminated by material

from a later period. The abundance of modern root and seeds in these deposits may also suggest that they are possibly subject to reworking through bioturbation.

Table 1: Charred plant remains recovered from Manor Farm, Wall, Staffordshire

Sample Number **Feature Number** **Context Number** **Sample Volume (L)** **Flot volume (ml)** **Seeds/ Litre**	**1** **F100** **1002** **10 L** **20 ml**	**2** **F100.1** **1004** **10 L** **10 ml**	**4** **F100.02** **1006** **10 L** **10 ml**	
LATIN BINOMIAL				**COMMON NAME**
Triticum sp. – free-threshing grain	-	1	1	Free-threshing wheat
Triticum sp. – free-threshing rachis node	3	2	2	Free-threshing wheat
Indeterminate Cereal/ Large Grass – caryopsis	-	1	1	Indeterminate cereal/ large grass
Indeterminate leaf/ calyx	1	-	-	Indeterminate leaf/ calyx
Indeterminate	5	-	2	Indeterminate
Other biological remains observed				
Charcoal	+	+	+	Charcoal

Scale used for charcoal: + < 10 ml and ++ > 10 ml but < 20 ml

N.B.: No charred plant remains were observed in samples 3 and 5, but charcoal was scored as + in sample 3 and ++ in sample 5.

6.0 CHARCOAL SAMPLE by Rowena Gale

A sample of charcoal (Sample 1) was examined in order to identify suitable material for Carbon 14 dating.

The charcoal was poorly preserved and contaminated with reddish iron oxide-like deposits. The charcoal was prepared for examination using standard methods (Gale and Cuttler 2000). The wood structure was examined using incident light on a Nikon Labophot-2 compound microscope at magnifications up to x400. The anatomical features were matched to reference slides of modern wood.

Sample <1> [1002] **1 x hazel (*Corylus avellana*), <1g;**
1 x *cf.* hazel (*Corylus avellana*),<1g;
1 x hawthorn/ *Sorbus* group (pomoideae), <1g;
4 x oak (*Quercus* sp.), heartwood and unknown maturity.

The taxa indicated in bold type are suitable for AMS (Accelerator Mass Spectrometry) dating. There was insufficient charcoal for conventional radiocarbon dating.

The processed charcoal sample has been sent to the Scottish Universities Environmental Research Centre, Glasgow for AMS dating.

7.0 *RADIOCARBON DATING RESULTS*

The charcoal sample from 1002, F100 produced an AMS radiocarbon date of 2140 +/- 35 BP (SUERC-2656). This date calibrates to 240-50 BC (at 95.4% probability) and 210-110 BC(at 68.2% probability) using Oxcal V. 3.8 software (Fig. 6).

8.0 DISCUSSION

Concentrations of heat fractured stone are usually represented in the archaeological record of Britain and Ireland by burnt mounds. There are particular concentrations of these features in Shropshire (Ehrenberg 1991 47-49), the West Midlands (*ibid.* 49-50) and several in Staffordshire (Wardle 2003b, 3; Welch 1991). Burnt mounds are distinctive features usually comprising a horseshoe shaped mound of burnt stone adjacent to a pit or trough (0'Kelly 1954, 127), usually square or rectangular in plan and flat based. The sites are regularly identified adjacent to streams or bogs (*ibid.* 106), and a continuous supply of water was a key feature of their function. Excavated sites from the midlands have largely produced radiocarbon dates in the mid-Late Bronze Age c. 1500-800 BC (Hodder 1990, 106-107; Hannaford 1999, 73), although their use has been demonstrated from the Early Bronze Age c.2500-1500 BC to the Late Bronze Age c. 1150-750 BC (e.g. Kelly 1992, 85-86; Wardle 2003b, 3). Settlement structures and artefacts are rarely associated with burnt mounds, which have traditionally been interpreted as cooking sites associated with seasonal hunting forays (O'Kelly 1954, 138). Alternative interpretations have suggested their use as sweat lodges (Barfield and Hodder 1987). Nevertheless, these sites appear to represent episodic settlement or social activity, away from more sustained nodes of residency.

The mid-Late Iron Age radiocarbon date obtained from the linear burnt stone feature at Wall clearly places it beyond the established date range of burnt mounds in Britain and Ireland. Furthermore, the morphology of the features differs from recorded Bronze Age examples in Britain (the linear feature is far larger in extent than troughs typically associated with burnt mound sites). Unlike burnt mound sites in Britain the feature recorded at Wall is not situated adjacent to an existing watercourse or palaeochannel. However, the presence of land drains across the site alludes to its naturally waterlogged nature, which may suggest that the features were originally in a wet or marshy location.

The accumulation of burnt stone in the features at Wall is unlikely to represent a single episode of use at this location. The stones were not burnt *in-situ,* suggesting that the associated features were unrelated to the primary use of the burnt stones. Instead the stones were deposited into the linear feature and two associated pits after heating. The size of the linear feature suggests it did not act as a water trough for boiling water unlike at Bronze Age burnt mound sites, and instead that these stones were deposited either intentionally or otherwise into these features after their primary use.

It is possible that the features excavated at Wall were not isolated within the immediate vicinity. The presence of a further, previously excavated burnt stone filled

linear feature at Wall, of comparable dimensions (Barfield 1991, 64), may also be regarded as mid-Late Iron Age in view of the recent radiocarbon date. The feature was originally regarded as pre-Roman and "from the earliest level of the site" (*ibid.*), although was not associated directly with any artefactual dating evidence.

The Iron Age in Staffordshire is generally an under-researched area of the archaeological record, despite a number of hillforts being present in the county (Wardle 2003b, 4-6). However, developer-funded excavations at Whitemoor Haye adjacent to the River Tame, have recorded settlement enclosures, structures and land division boundaries dating to this period (Coates 2002). The presence of heat-fractured stone together with mid-Late Iron Age radiocarbon dates calibrating to between 400 and 155BC (Beta-135227) and 320-205 BC (Beta-135226) in a pit alignment at Whitemoor Haye (*ibid.* 13-15), further demonstrates the use of heated stone in the Iron Age in Staffordshire.

The pit alignments at Whitemoor Haye have been considered to represent a symbolic boundary between landscape zones (Coates 2002, 82) rather than having a purely utilitarian function. In a wider context, linear stone filled channels associated with burnt stones have also been identified in Denmark dating to the Bronze Age, again recorded over several hundred metres, although their function is unknown (Barfield pers. comm.). The features at Wall do not form part of any such large-scale boundary. This does not preclude, however, the similar use of burnt stone as a symbolic deposition at a specific place, representing activities associated with its primary use. The location of the features in a potentially waterlogged location in prehistory may represent activities at the limits of a settlement in the mid-Late Iron Age. It is also possible that the stone-filled features at Wall represent the truncated remains of Iron Age settlement activity, yet no associated settlement features, structures or enclosures were present as exemplified at Whitemoor Haye (Coates 2002). The lack of further associated Iron Age activity at the site at Wall is further emphasisied by the large area stripped under controlled conditions and the fact that no artefacts were recovered. It is, therefore, unlikely that the features recorded relate to an associated nucleated settlement site. If such a site existed it must be separated from these features by some distance.

The features excavated at Wall demonstrate the use of burnt stone in contexts separated from core settlement activities beyond the Bronze Age and into the late first millennium BC in Britain. The features demonstrate that not all isolated concentrations of burnt stone are necessarily of Bronze Age date, and that the use of radiocarbon dating of all such features in Staffordshire and the West Midlands is essential. The context of depositions of burnt stone in the Iron Age in the West Midlands in relation to enclosed settlement and agriculture may be the subject of future research in the region.

The fact that no Romano-British archaeology was encountered during the watching Brief demonstrates that the civilian occupation recorded to the southeast of Wall (Jones 1998), does not extend into this area. This may be of use in future interpretations of the development of the Roman town at Wall.

9.0 ACKNOWLEDGEMENTS

John Halsted of Birmingham Archaeology, assisted by Sally Radford undertook the watching brief. Gary Coates and Richard Cuttler managed the project. The report and illustrations were prepared by John Halsted and edited by Richard Cuttler and Mark Hewson. The charred plant remains were analysed by Wendy Smith, Institute of Archaeology and Antiquity, University of Birmingham. The charcoal sample was identified and processed by Rowena Gale, Department of Archaeology, University of Reading. I would like to thank Dr. Laurence Barfield, Institute of Archaeology and Antiquity, University of Birmingham, for bringing to my attention the previously excavated burnt stone feature at Wall, and further parallels to the features recorded here. Thanks are also due to Mr Ryman for commissioning the project.

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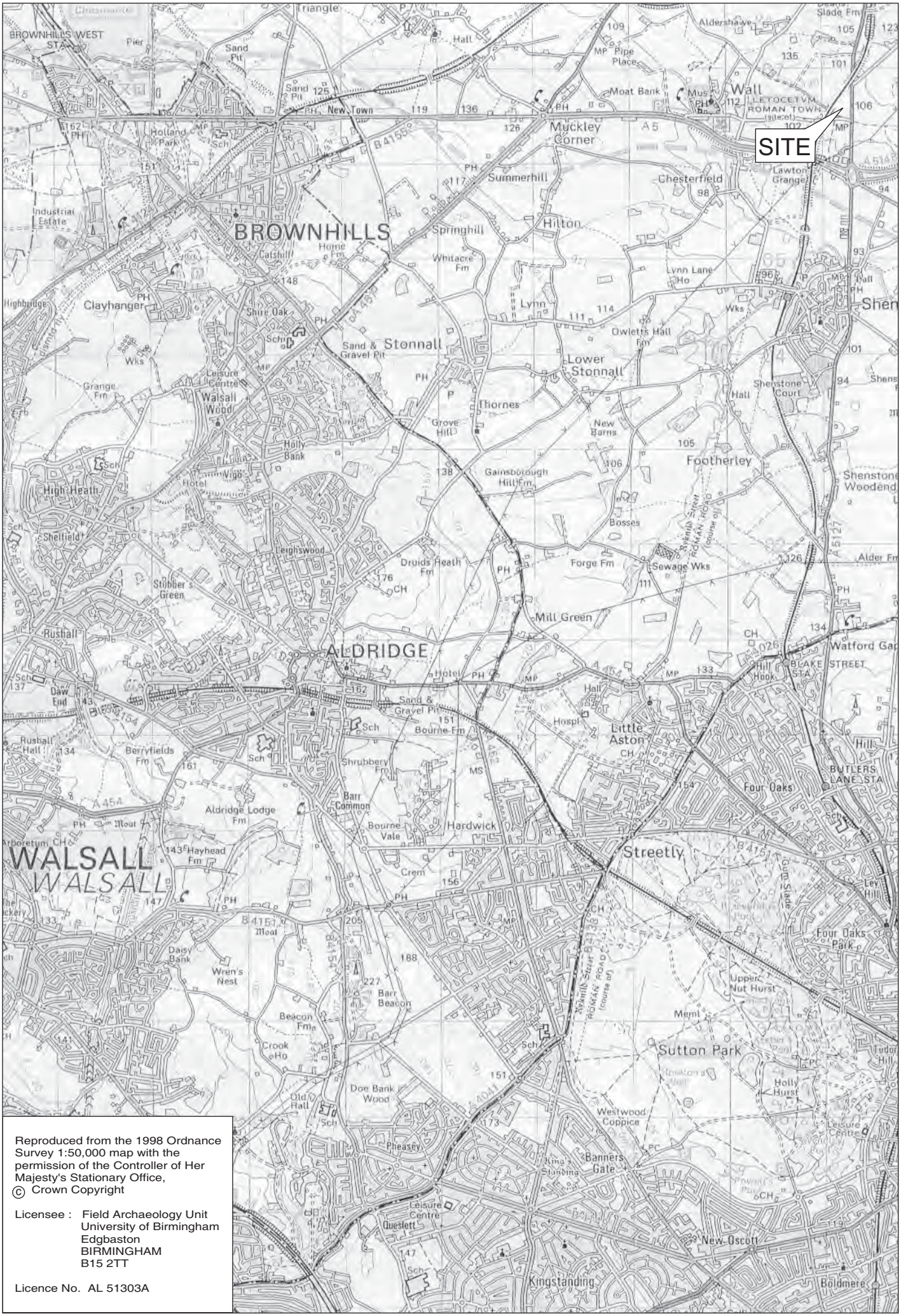


Fig.1

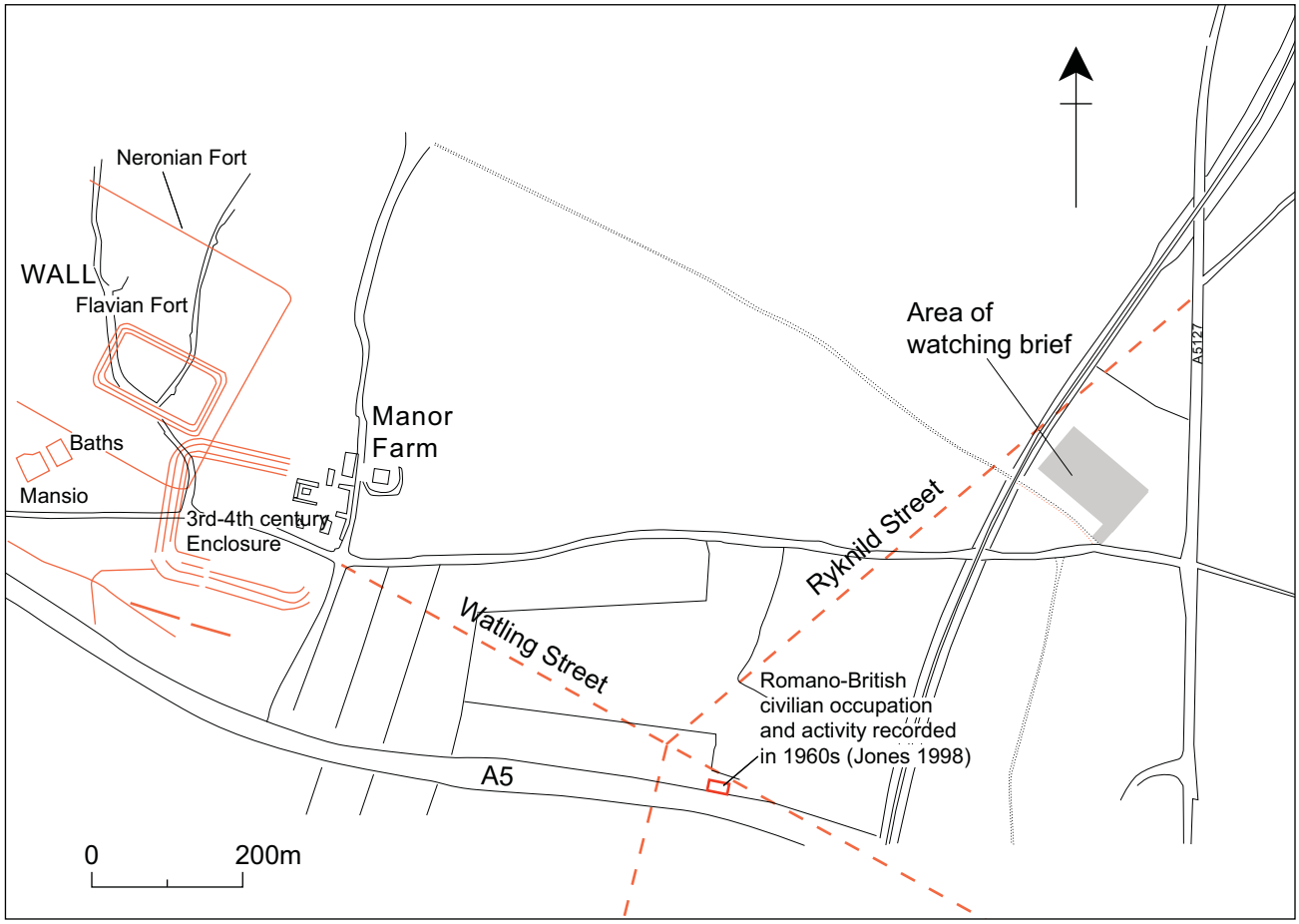

Neronian Fort
WALL
Flavian Fort
Baths
Mansio
3rd-4th century
Enclosure
Manor
Farm
Area of
watching brief
A5127
Ryknild Street
Watling Street
Romano-British
civilian occupation
and activity recorded
in 1960s (Jones 1998)
A5
0
200m

Fig.2

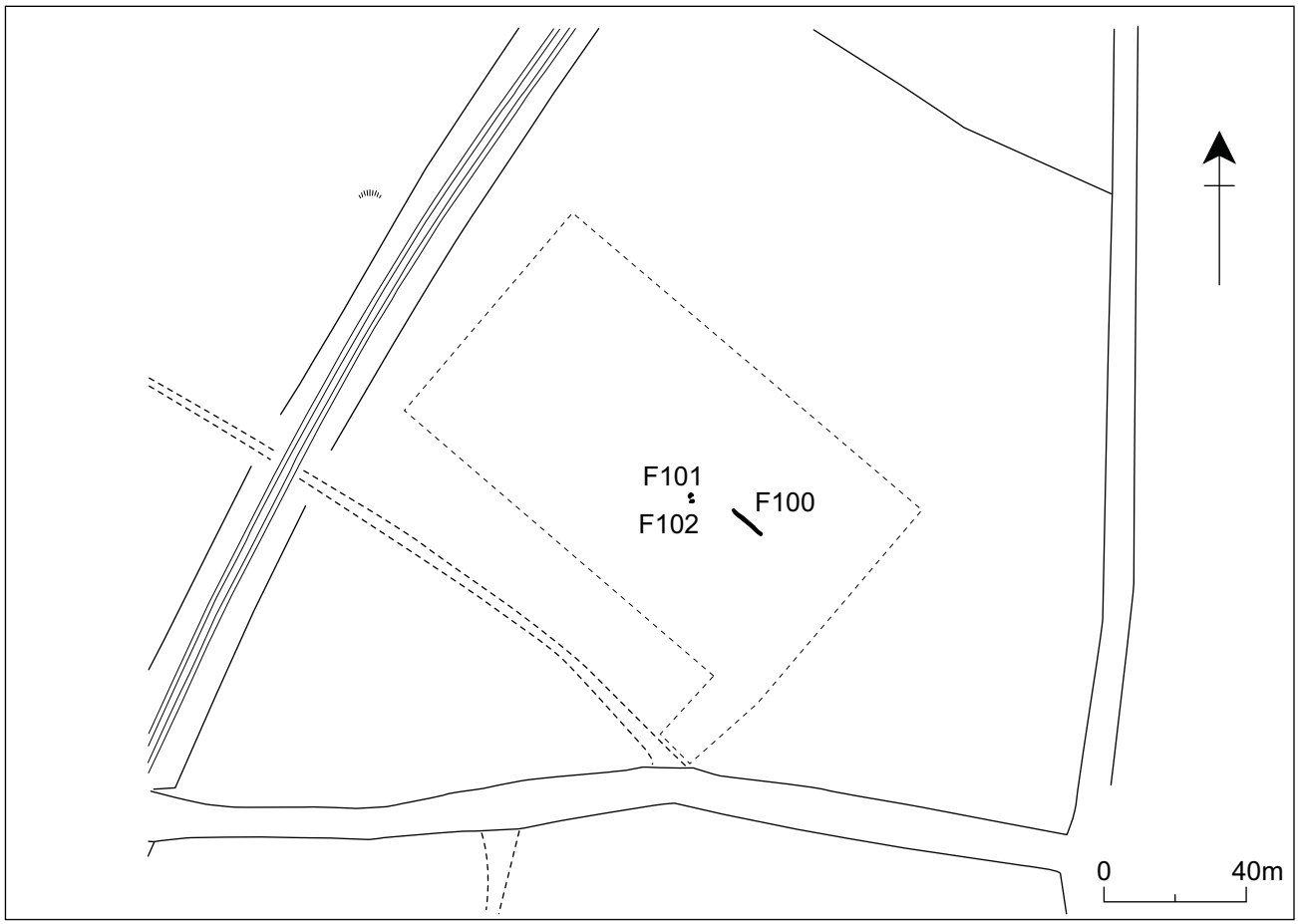
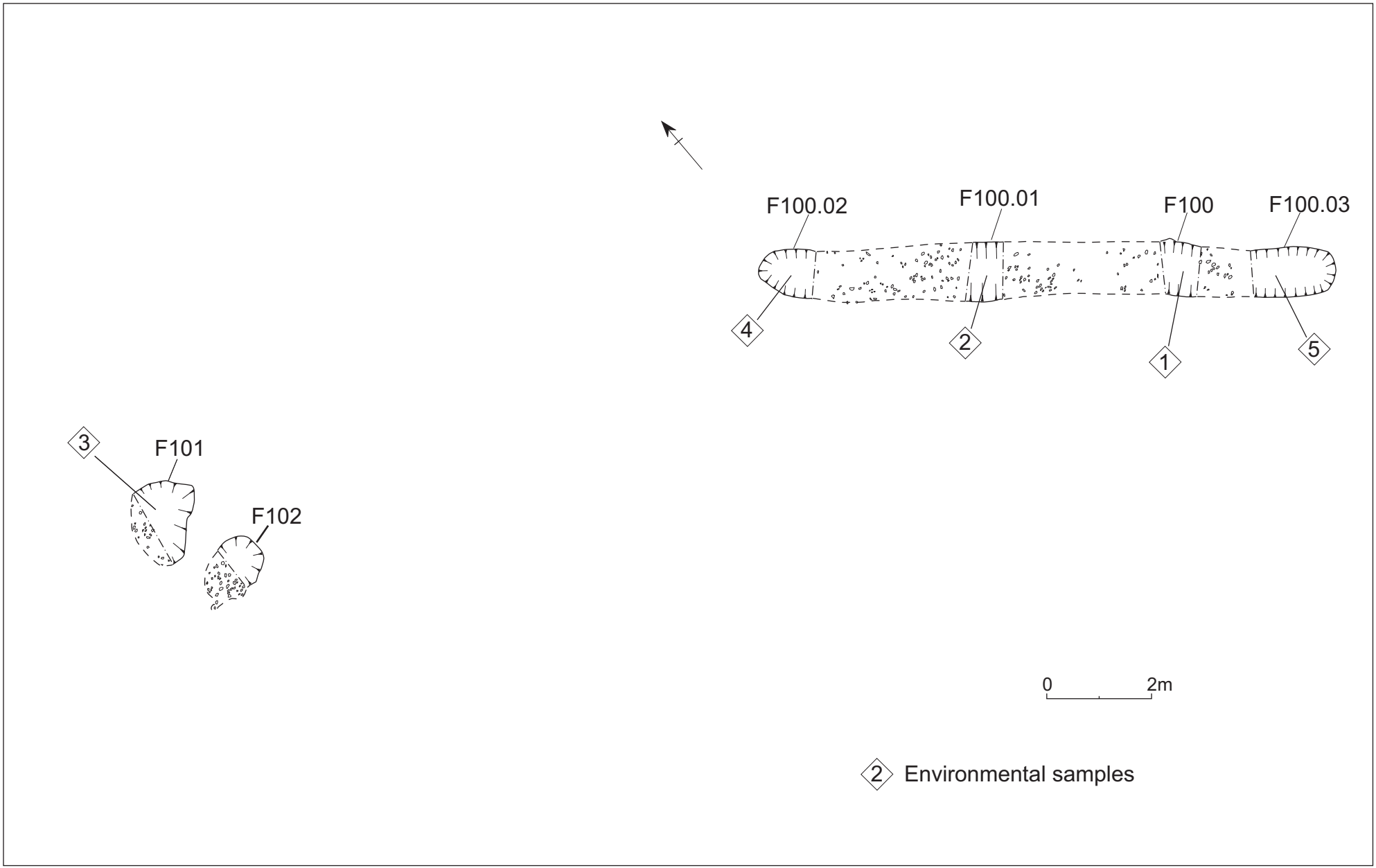

F101
F102
F100
0
40m

Fig.3


F100.02
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F100
F100.03
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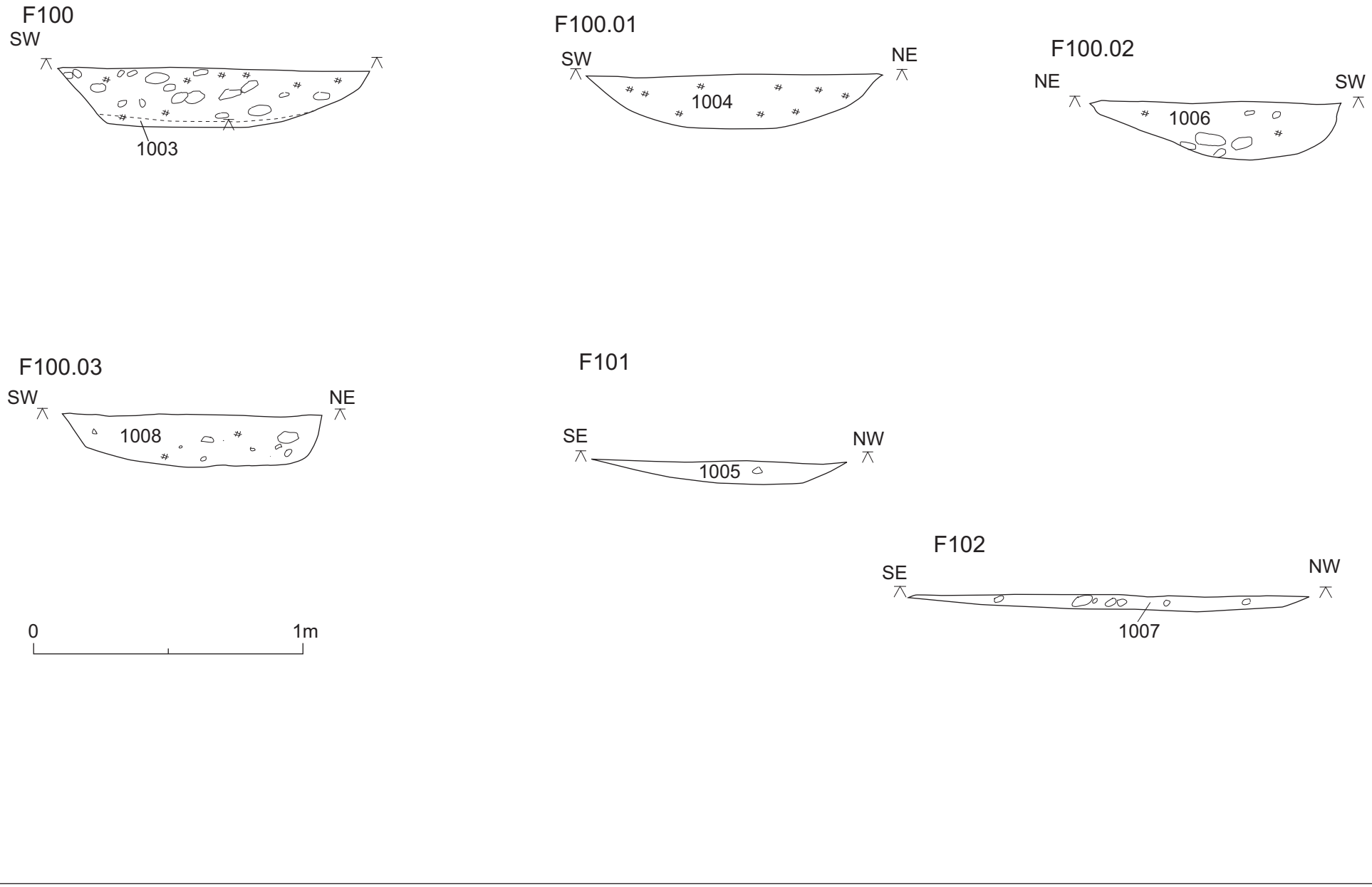
2
1
5
3
F101
F102
0
2m
2 Environmental samples

Fig.4


F100
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1003
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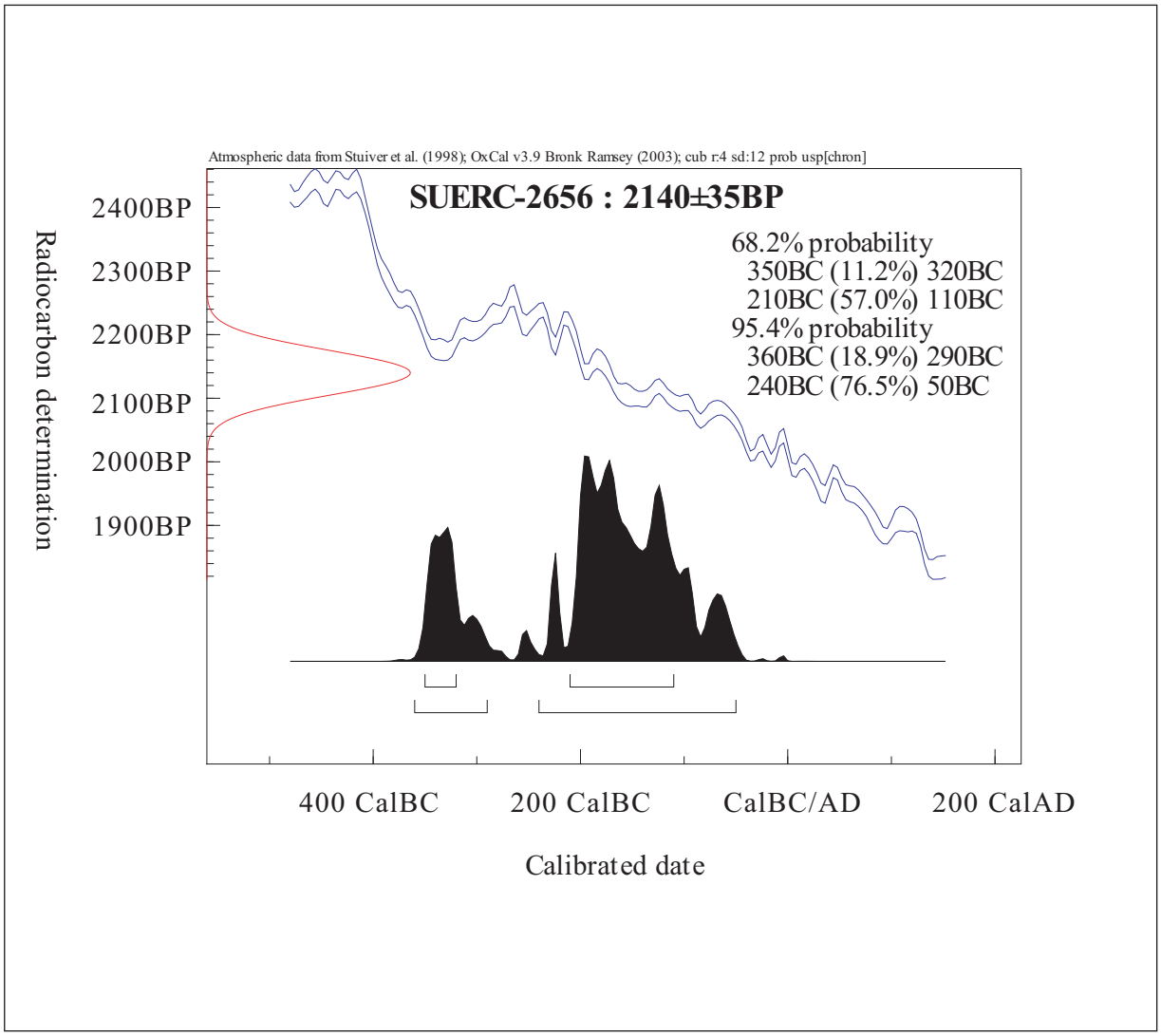
NW
1005
F102
SE
NW
1007
0
1m

Fig.5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SUERC-2656 : 2140±35BP
68.2% probability
350BC (11.2%) 320BC
210BC (57.0%) 110BC
95.4% probability
360BC (18.9%) 290BC
240BC (76.5%) 50BC
2400BP
2300BP
2200BP
2100BP
2000BP
1900BP
Radiocarbon determination
400 CalBC
200 CalBC
CalBC/AD
200 CalAD
Calibrated date

Fig.6

Plate 1

Plate 2

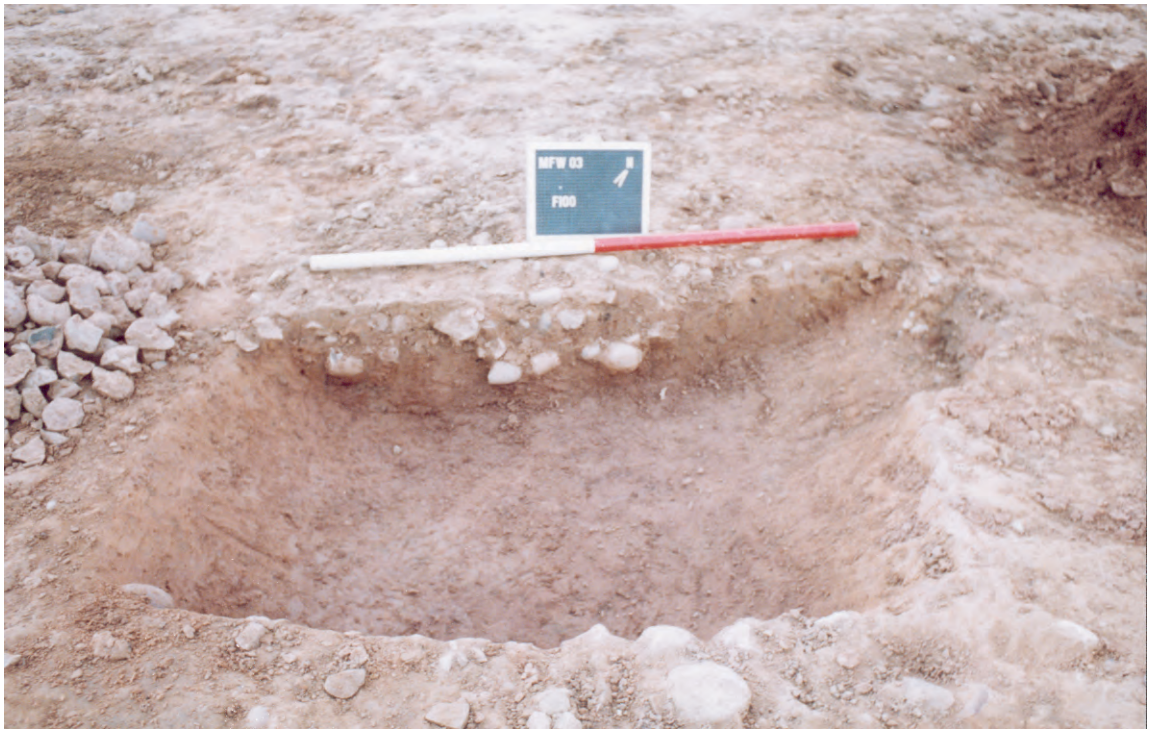

Plate 3

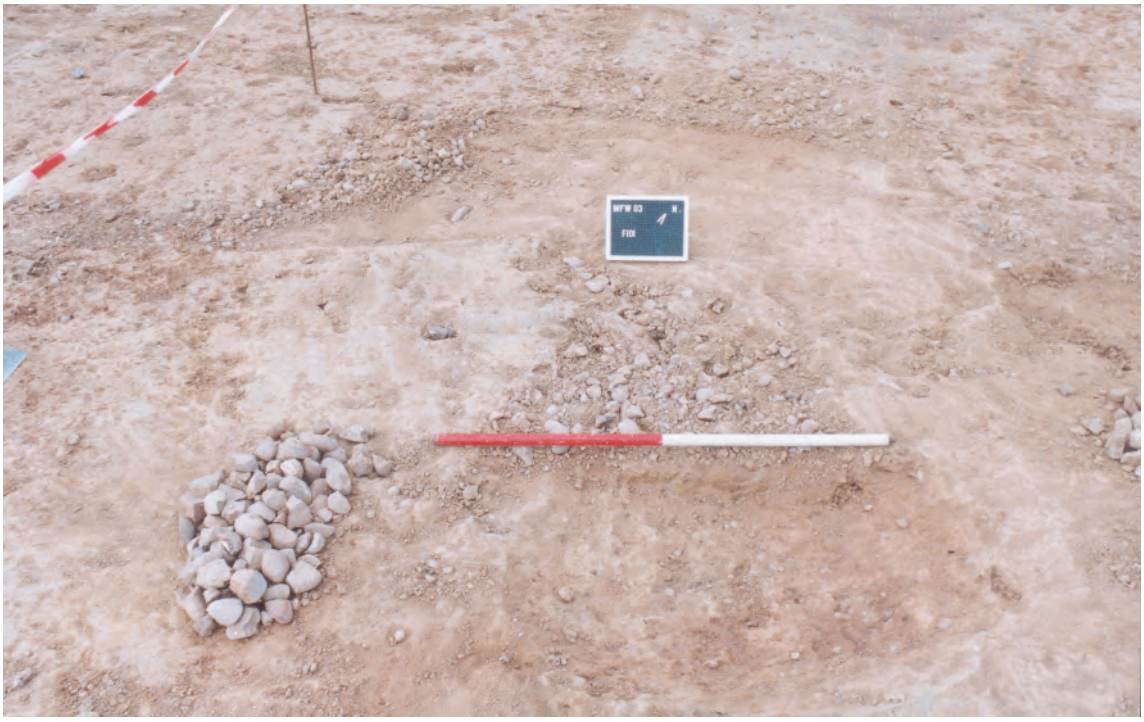

Plate 4

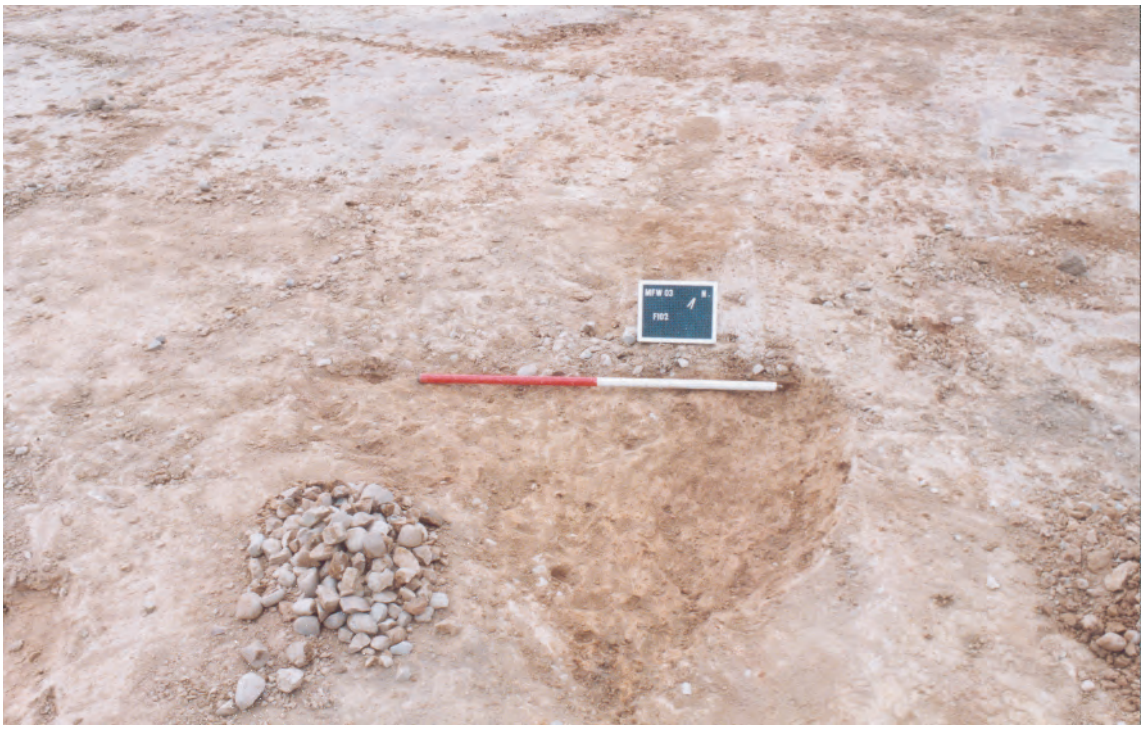

Plate 5