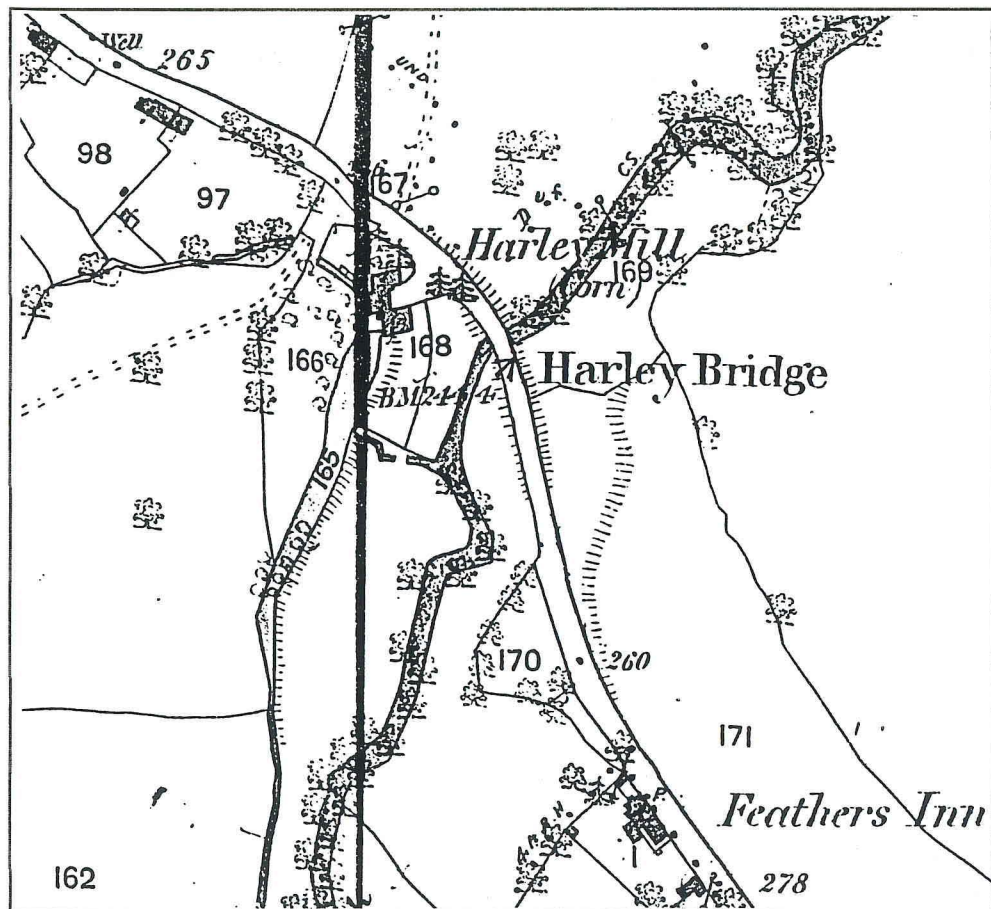


THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Old Mill, Harley, Shropshire

ARCHAEOLOGICAL SURVEY



CPAT Report No 593

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Old Mill, Harley, Shropshire

ARCHAEOLOGICAL SURVEY

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November 2003

Report for Mr W J Cooper

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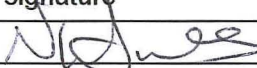


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Report and status

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1 INTRODUCTION

- 1.1 In July 2003 the Contracts Section of the Clwyd-Powys Archaeological Trust (CPAT) was invited by Mr W J Cooper to prepare a specification and quotation for undertaking an archaeological survey of the earthwork remains of the leat associated with the Old Mill, Harley, Shropshire.
- 1.2 The survey concerns an area of well-preserved earthwork remains associated with the former mill leat, part of which has been damaged by recent groundworks. Reinstatement of the damaged section has been made a condition of retrospective planning permission (Shropshire Planning Application Reference No 03/0293/F), and the survey was intended not only to record the surviving remains but also to inform and facilitate the reinstatement. The survey was requested by Mr M Watson, Historic Environment Officer, Shropshire County Council, who prepared a brief (dated 10 July 2003) which detailed the required scheme of archaeological works. The quotation was accepted in October 2003 and the survey conducted shortly thereafter.

2 LOCATION AND TOPOGRAPHY

- 2.1 The Old Mill (Fig. 1; SJ 5995 0113) lies along the north side the Harley Brook, south of the village of Harley, which is situated 3km north of Much Wenlock, Shropshire, at around 75m above Ordnance Datum. The old road between Much Wenlock and Shrewsbury ran close to the east side of the former mill, with a bridge across the Harley Brook immediately downstream of the mill. The present road runs slightly further to the east, having bypassed the village and mill.
- 2.2 The area of investigation lies immediately adjacent to, and to the south of, the Old Mill, comprising a pasture field which extends for around 220m to a recent post and wire boundary. The leat occupies the western side of the field, following the contours of the valley side above the flood plain of the brook.

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 A desktop study was undertaken to provide background information and assist with the interpretation of the survey. The study included readily available cartographic, aerial photographic, documentary and relevant databases sources held by the County Sites and Monuments Record (SMR) and the Shropshire Records and Research Centre, both of which are located in Shrewsbury.
- 3.2 A search of the SMR revealed little detail relating to the mill (PRN 15674). A mill was recorded at Harley in the Domesday survey of 1086, although its exact location is not known. Two mills were in operation at Harley during the 17th and 18th centuries, being held by the Carter family between 1619 and 1734. The present building would appear to be largely late 18th or early 19th-century in date and was disused by 1905 (Gaydon 1968, 86; 89). The mill building is now a private residence and some of the adjacent buildings have also been converted for residential use.
- 3.3 The Tithe Survey for Harley Parish dated 1841 (Fig. 2) depicts the mill with a linear mill pond to the south-west (Fig. 2, 265), beyond which the leat forms a field boundary. The field between the mill pond and the Harley Brook is recorded as 'Meadow', while the field to the north-west is recorded as 'Mill Bank'.
- 3.4 The Ordnance Survey 1st edition 25" map, surveyed 1873-83 (Fig. 3), provides a clear depiction of the mill, together with its mill pond and leat. An overflow leat is shown leading eastwards from the pond, through the meadow, to the Harley Brook, with a gap presumably representing a bridge. This leat would have been equipped with a sluice at its head to control the water level in the mill pond and divert the water when the mill was not in operation. The leat is shown following the north-west side of the Harley Brook from a weir at SJ 58780005 (Fig. 1) to the mill pond, a distance of c. 1.8km.

4 TOPOGRAPHICAL SURVEY

- 4.1 A Total Station survey was conducted to RCHME Level III (RCHME 1999) using a Wild TC500 EDM in conjunction with Penmap survey software. The survey included the top and bottom of all earthworks, as well as modern boundaries, together with one profile of the mill leat. Levels were not related to Ordnance Datum as no Ordnance Survey benchmark survived within a reasonable distance of the survey area. The data were coded using a standard set of layers, a list of which is provided within the site archive (Appendix 2).
- 4.2 The survey was conducted as thoroughly as practical, given limitations imposed by vegetation cover along the boundaries and the banks of the Harley Brook.
- 4.3 Post-survey processing employed AutoCAD13 to orientate the survey data in relation to Ordnance Survey Grid North, achieved as a best fit against plotted boundaries, although the survey was not geo-referenced to the Ordnance Survey National Grid. The survey data were used to produce a digital hachured plan of the earthworks, indicating the areas affected by recent groundworks (Fig. 4).
- 4.4 The earthwork remains of the leat and mill pond survive almost intact in the southern section of the survey area. Both follow the contours of the valley side and comprise a gently sloping terrace revetted by a substantial earthwork bank on the eastern, downslope side. Due to the recent groundworks and vegetation cover it was only possible to survey one profile across the leat towards the southern end of the area (Fig. 4, A-B). The revetment bank has a flattened top up to 2.8m wide and varies in overall width between 7m and 10m, standing to a maximum of 2.4m high on its outer side. The inner edge stands up to 0.35m above the present ground surface within the leat and pond, although both appear to be heavily silted, so that their original depth is likely to have considerably deeper. A narrow earthwork ramp ascends the bank towards the southern end of the survey area, presumably indicating a former trackway.
- 4.5 There is no earthwork evidence to suggest the point at which the leat entered the mill pond and it appears that the leat was simply widened as it neared the mill in order to provide the necessary head of water to operate the wheel. The base of the leat was approximately 3.5m wide at the southern end, widening to an average of 7m as it formed the mill pond. Evidence from the Ordnance Survey 1st edition map (Fig. 3) suggests that at its broadest the mill pond was perhaps 13m wide immediately adjacent to the mill, and extended for up to 130m in length (see Fig. 5). The water wheel was on the southern end wall of the mill and would have been fed either, over-shot or breast-shot, by a wooden launder from a sluice at the end of the pond, for which no evidence survives.
- 4.6 The recent groundworks have affected a large area of the pasture field to the south of the mill and have included significant excavations close to the building with the resulting spoil spread in a series of dumps. The reduction of the ground surface to a near-vertical edge 1.5m high along the western side of the mill, together with levelling operations immediately to the south, have left no visible trace of the northern end of the pond. A large spoil dump on the eastern side of this area appears to be on top of the original earthwork bank, although none of this structure is now visible. There is also no visible trace of the overflow leat, either at its junction with the pond, or along its course to the brook. The position of the sluice appears to lie beneath the spoil dump and it is possible that buried remains survive.
- 4.7 Further south, an access track has been created by excavation and levelling of the revetment bank, beyond which further spoil has been dumped along the bank and within the mill pond. The western edge of the pond has also been slightly cut back at its base. Spoil has also been dumped along the base of the bank and within the pasture between it and the brook, an area which has also been subject to some excavation and levelling.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The results from the survey have demonstrated the substantial nature of the earthworks for the leat and pond associated with Harley Mill, which are likely to date from the later 18th or 19th centuries. In the southern part of the survey area the earthworks survive virtually intact, with the leat forming a gently sloping terrace around 3.5m wide following the contours of the valley side, and revetted by a large earthwork bank up to 10m across and 2.4m high.
- 5.2 The northern end of the mill pond has been damaged by the excavation, levelling and dumping of spoil, such that the original extent and form of the earthworks is no longer apparent close to the mill building. Evidence from the Ordnance Survey 25" map of 1873-83 does, however, indicate the original extent of the mill pond, as well as the location of the overflow leat. This information has been digitally transcribed and overlain onto the survey plan to provide an interpretation of the surviving earthworks and an indication of their original extent (Fig. 5).
- 5.3 It appears that although much of the northern end of the mill pond has been affected by the groundworks, the earthwork revetment bank is likely to survive in much of this area, buried beneath recent spoil dumps. The northern end of the pond has, however, been removed and part of the bank has been degraded by the creation of an access track between two areas of spoil.
- 5.4 The careful removal of spoil dumped onto and against the revetment bank, as well as within the mill pond, should enable much of the original earthwork to be revealed in a more or less undamaged state. The bank could be reinstated in the area of the access track, using spoil to match the profile of the surviving sections. The result should be similar to the recorded profile of the bank (Fig. 4, A-B), creating an earthwork with an inner edge perhaps 0.35m high, a flattened top 3.5m wide and an overall width and height of around 10m and 2.4m respectively. The position of any reinstated bank should follow the line of the existing sections as closely as possible, with the intention of forming a revetment along the outer edge of the mill pond in the position indicated on the Ordnance Survey 25" map of 1873-83.
- 5.5 Any reinstatement should be undertaken under archaeological supervision to ensure that no *in situ* earthwork remains are disturbed and that any features which may be revealed are adequately recorded. The latter is of particular relevance to the overflow leat, remains of which may survive beneath the spoil.

6 ACKNOWLEDGEMENTS

- 6.1 The writer would like to thank the following people for their assistance during the project: Wendy Owen and Fiona Grant, CPAT; Penny Ward, SMR Officer Shropshire County Council; and the staff of Shropshire Records and Research Centre.

7 REFERENCES

Published sources

Gaydon, 1968. *Victoria History of Shropshire, Vol 3.*

RCHME, 1999. *Recording Archaeological Field Monuments: a Descriptive Specification.* Royal Commission on Historical Monuments in England.

Cartographic sources

Tithe Survey for Harley Parish, 1841

Ordnance Survey 1st edition 25" map, Shropshire 50.7, surveyed 1973-83

APPENDIX 1

THE OLD MILL, HARLEY, SHROPSHIRE SPECIFICATION FOR AN ARCHAEOLOGICAL SURVEY BY CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

1.1 The Contracts Section of the Clwyd-Powys Archaeological Trust has been approached by Mr W J Cooper to produce a quotation and specification for an archaeological survey of an area of land adjacent to The Old Mill, Harley, Shropshire (SJ 5995 0113).

1.2 The survey concerns an area of well preserved earthwork remains associated with the former mill leat, part of which has been damaged by recent groundworks. Reinstatement of the damaged section has been made a condition of retrospective planning permission (Planning Application Reference No 03/0293/F) and the survey is intended not only to record the surviving remains but also to inform and facilitate the reinstatement.

1.3 A curatorial brief has been prepared by the Historic Environment Officer, Shropshire County Council, which describes the scheme of works required.

2 Objectives

2.1 The objective of the survey is to make a full and accurate record of visible surface remains of the mill leat and any other associated water engineering features within the study area, as defined in the curatorial brief.

3 Methods

3.1 A desktop study will be undertaken to provide background information and assist with the interpretation of the survey. The study will include readily available cartographic, aerial photographic, documentary and relevant databases sources. Repositories will include the following: Sites and Monuments Record, Shrewsbury; Shropshire Records and Research Centre, Shrewsbury; Shropshire County Council.

3.2 The Total Station survey will be conducted to RCHME Level III using a Wild TC500 EDM in conjunction with Penmap survey software. The survey will include the top and bottom of all earthworks, as well as modern boundaries. Readings will be taken at appropriate intervals, normally between 5m and 10m apart and will include sufficient points to allow a digital terrain model (DTM) to be produced of the area. At least one profile will also be recorded of the mill leat. Levels will be related to Ordnance Datum if possible. The data will be coded using a standard set of layers, a list of which will be provided with the archive. A written description of the earthworks will be produced, for inclusion in the report.

3.3 The survey will be conducted as thoroughly as practical, given possible limitations imposed by vegetation cover. It is understood that the site is currently under grass which has not been cut this season and information from the client suggests that it will be impractical to do so prior to the survey work being undertaken.

3.4 Post-survey processing will use AutoCAD13 to position the survey data against the Ordnance Survey National Grid, achieved as a best fit against plotted boundaries.

Report and archive

3.5 Following the on-site work an illustrated and bound report will be prepared according to the principals in the curatorial brief (section 3.2.6). This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Topographical Survey; Conclusions and References.

3.6 The report will be illustrated by a metrically accurate plan at a scale of 1:1,000, with hachures used to depict the earthworks. A profile at 1:250 will also be produced of a well-preserved section of the leat.

3.7 Prior to the commencement of the project the Curator of Archaeology, Museum Service, Shropshire County Council, will be contacted to advise on a suitable repository for the site archive. Copyright to be retained by CPAT. The archive will include: digital data in Penmap, AutoCAD13, DXF and Mapinfo formats; survey plots; list of digital layering.

4 Resources and Programming

4.1 The Total Station survey will be undertaken by Nigel Jones, a member of CPAT's staff who is experienced in total station ground survey, together with a survey assistant. Overall supervision will be undertaken by Bob Silvester, a Member of the Institute of Field Archaeologists. CPAT is also an IFA Registered Organisation.

4.2 It is anticipated that the survey will be completed within two days and the report produced within 10 working days of the completion of on-site works. At present, CPAT would be in a position to undertake the survey during early to mid August 2003.

4.3 Requirements relating to Health and Safety regulations, together with the Institute of Field Archaeologist *Code of Conduct* will be adhered to by CPAT and its staff.

4.4 CPAT is covered by appropriate Public and Employer's Liability insurance.

N.W. Jones
23 July 2003

APPENDIX 2

PROJECT ARCHIVE

Total Station Survey

Penmap version 4.34b

Harley.pts

Harley.dxf

Penmap Layers

Top	top of slope
Base	base of slope
Boundary	boundary
Spots	levels
Spbase	base of spoil
Sptop	top of spoil
Default	default layer

AutoCAD13

1136plan.dwg	augmented survey repositioned to OS Grid North
1136cont.dwg	0.5m contours

Mapinfo 6

1136plan.tab	hachured survey plan
1136plan.dxf	hachured survey plan
11361sted.tab	detail from Ordnance Survey 1 st edition
1136prof	leat profile

Photographs

colour slidescs03/53/32-35

Reproduced from the Ordnance Survey's
1:25,000 map of 1977 with the permission
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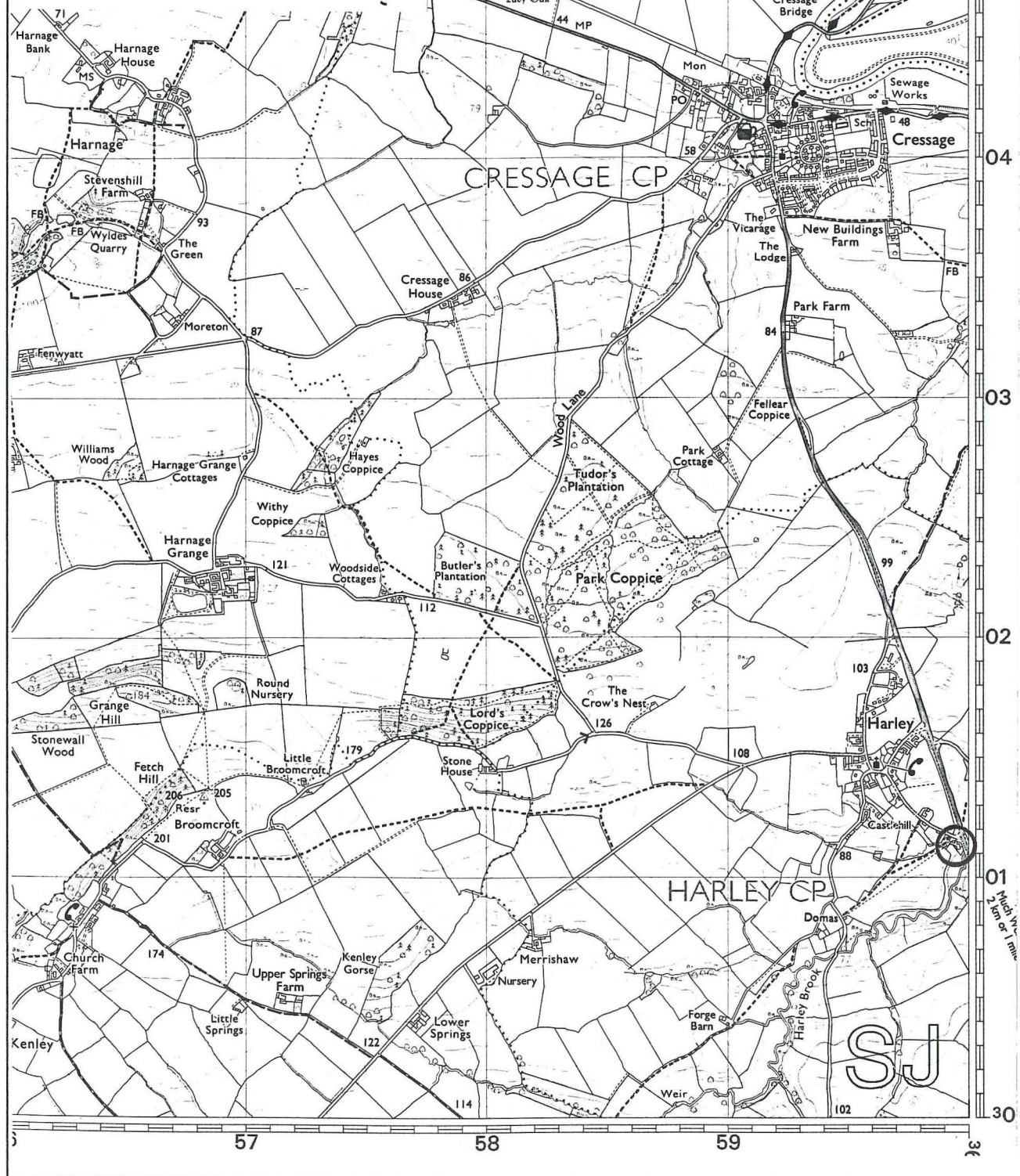


Fig. 1 Site Location Scale 1:25,000

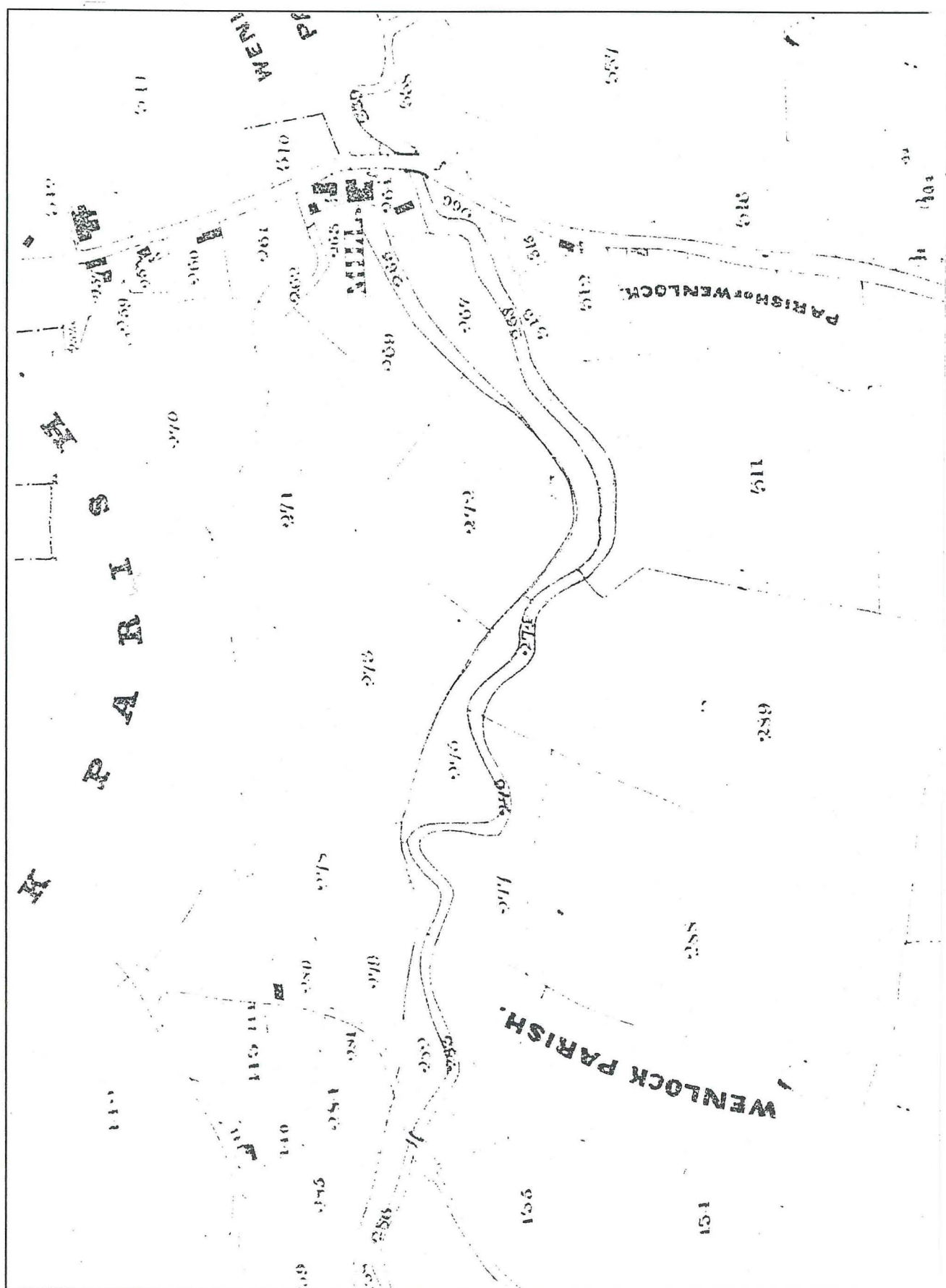


Fig. 2 Tithe Survey of Harley Parish, 1841

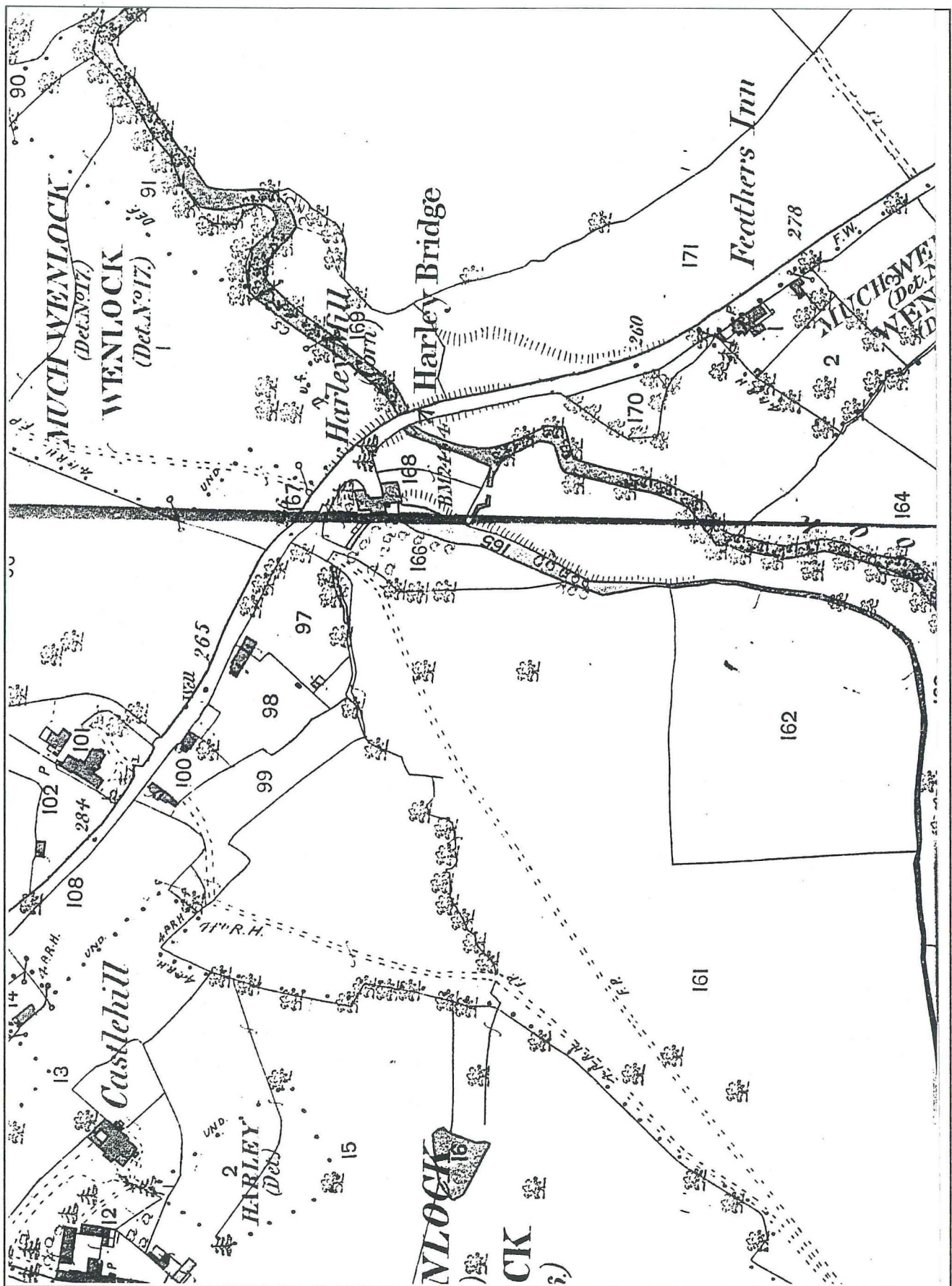


Fig. 3 Ordnance Survey 1st edition 25", 1873-83 (Shropshire 50.7)

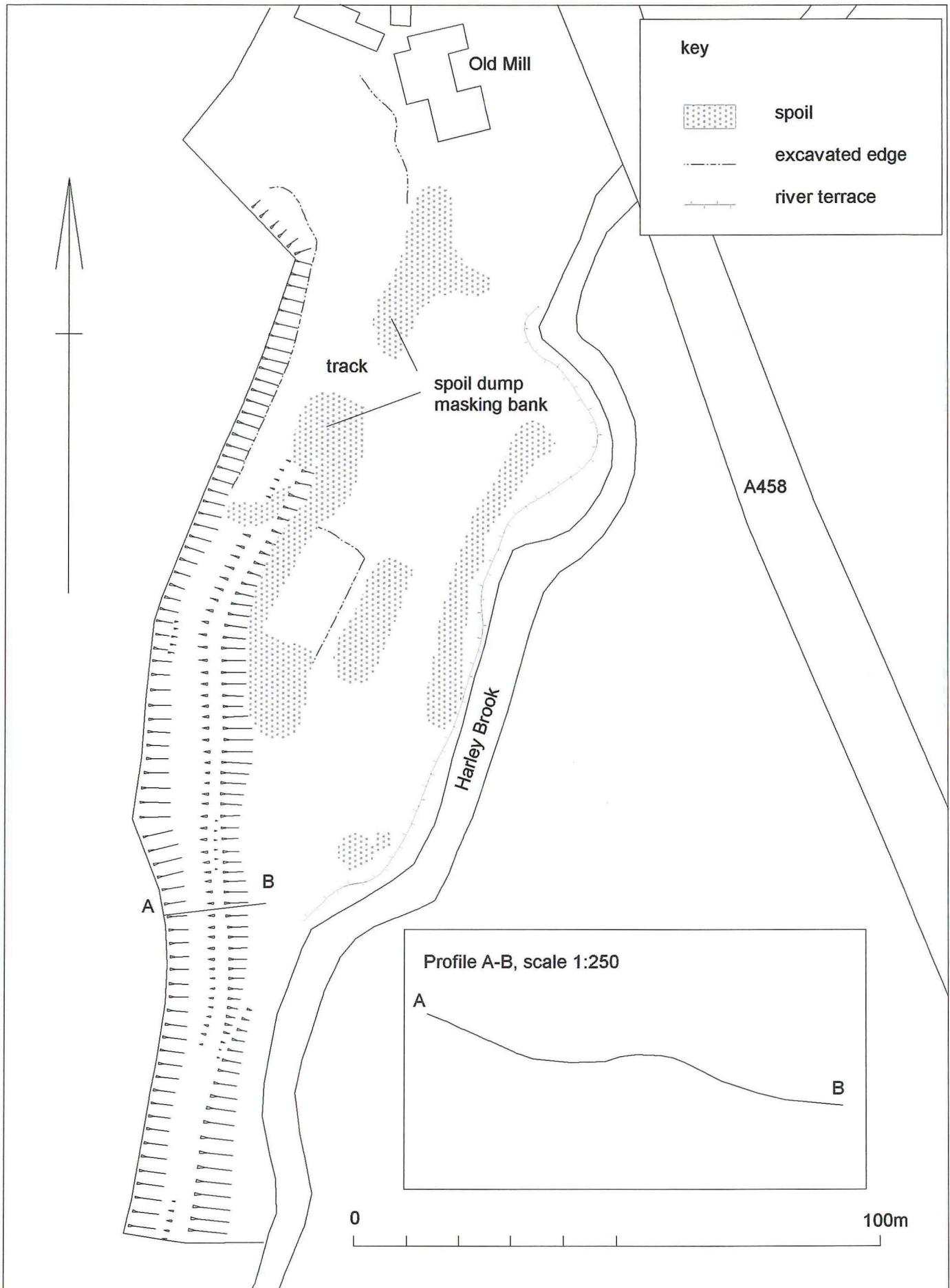


Fig. 4 Topographical survey, scale 1:1,000

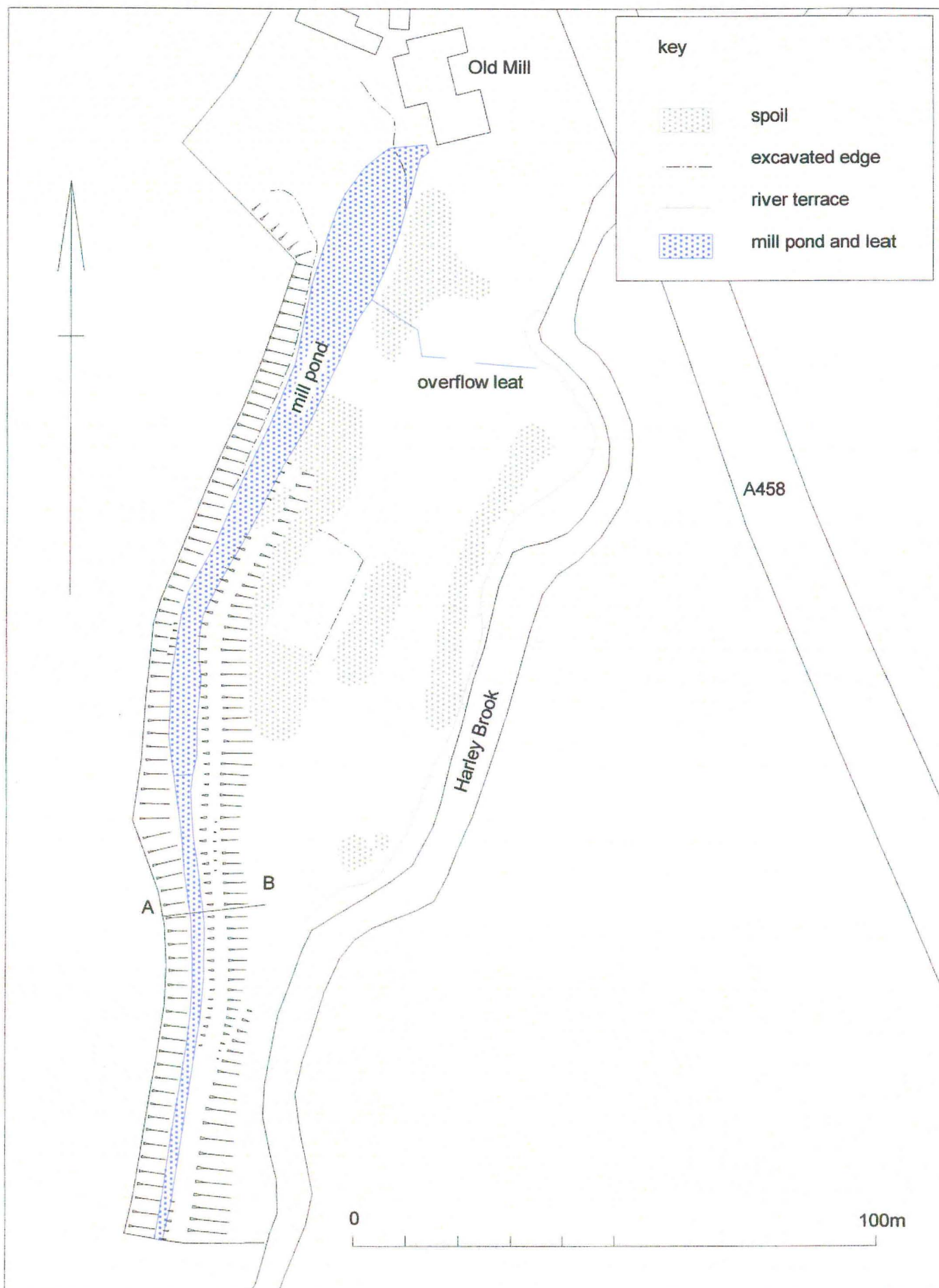


Fig. 5 Topographical survey: interpretation. Scale 1:1,000



Plate 1 Harley Mill pond from SW showing area of groundworks. Photo CPAT CS03/53/33



Plate 2 Harley Mill leat and mill pond from S. Photo CPAT CS03/53/34