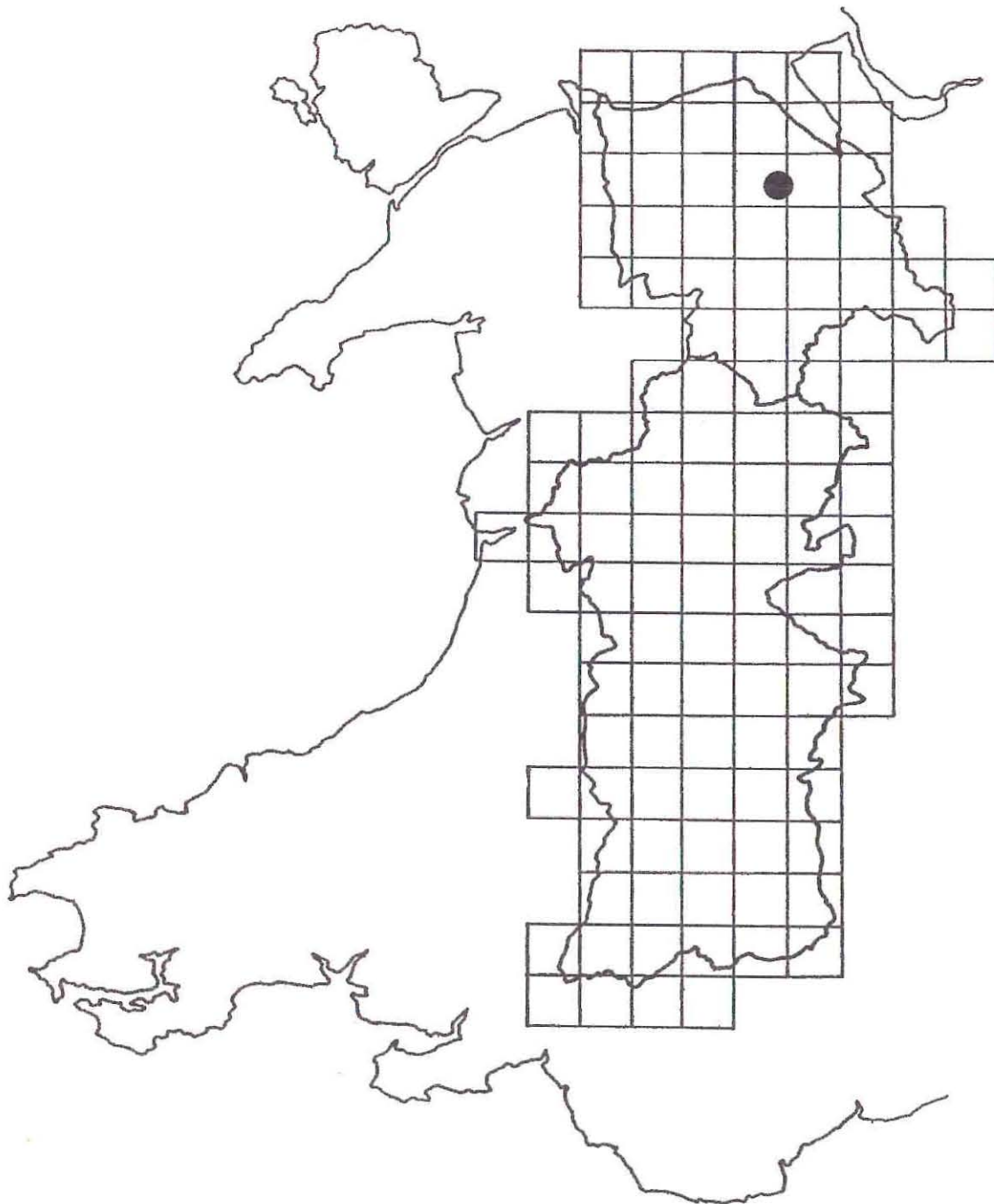


Extension to Trimm Rock Quarry, Cilcain, Clwyd
ARCHAEOLOGICAL ASSESSMENT



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by W.G. Owen
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Report prepared for Tilcon Limited

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Summary

CPAT Contracting undertook a desk-top assessment and field survey of the area of a proposed extension to Trimm Rock Quarry, Cilcain, Clwyd, owned by Tilcon Limited. The assessment consisted of a search of all relevant available documentary, cartographic and aerial photographic sources, followed by a methodical field survey of the proposal area. The field survey identified 20 features, all of which relate to periods of mining activity, consisting mostly of mine shafts and trials.

1 Introduction

- 1.1 In March 1995, the Contracts Section of the Clwyd-Powys Archaeological Trust (henceforward CPAT Contracting) was invited by Tilcon Limited of Lingerfield, Scotton Knaresborough, North Yorkshire, to tender for a desk-based archaeological assessment and field survey of an area immediately to the north of Trimm Quarry in north-west Clwyd (centred at Grid Reference SJ 190 664).
- 1.2 The basis for the assessment and field survey was determined by a specification prepared on behalf of Tilcon Limited by the Clwyd Archaeology Service, a part of Clwyd County Council. Tilcon Ltd had applied for planning permission from Clwyd County Council to extend their current extraction limit at Trimm Quarry for the extraction of limestone (Planning Application Number 6/22813).
- 1.3 CPAT Contracting was subsequently commissioned by Tilcon Limited to carry out the assessment, which was undertaken in early April 1995.

2 Archaeological Requirement

- 2.1 The aim of the evaluation was to gather sufficient information to establish the presence/absence, extent, condition, character, quality and date of any archaeological features within the whole of the area potentially affected by development, in order that the Local Planning Authority could make a reasonable and informed decision regarding the need for subsequent conservation and/or additional archaeological work.

3 Location and Description (Figs 1 and 2)

- 3.1 The application site, which lies 1.8km north-east of the village of Cilcain, covers an area of approximately 1.2ha immediately to the north and north-west of the present quarry face of Trimm Quarry.
- 3.2 The topography of this area is undulating, with natural slopes to the east and west. Approximately three-quarters of the area, constituting a part of the larger woodland known as Coed Du, consists of a mixed deciduous/coniferous stand of trees, the remainder being an open pasture field to the north-west.
- 3.3 Soils are shallow rankers of the Crwbin series derived from the underlying fractured carboniferous limestone which is frequently exposed on the surface (Rudeforth et al. 1984). A characteristic of the geology of the area is that lead- and zinc-bearing ores are contained in lodes within the limestone strata. These lodes have a definite arrangement in two sets: one aligned mainly in east/west, referred to as 'veins' and the other aligned north/south, referred to as 'cross-courses'. The survey area is traversed by a major vein known as the Coed-du or Cefn Cilcain Vein which terminates at the Coed-du or Llwyn Traus cross-course, some 300m to the east of the area (Smith 1921).

4 Methodology

- 4.1 The desk-top study comprised a search of all easily accessible primary and secondary records relating to the site and its environs. These included a consultation of the Clwyd County Sites and Monuments Record, and the examination of available cartographic and documentary sources lodged at both the National Library of Wales in Aberystwyth and the Clwyd Record Office in Hawarden. A search was also made of vertical aerial photography held by the Royal Commission for Ancient and Historical Monuments in Aberystwyth.
- 4.2 The field survey was carried out by walking the area along transects at 10m intervals, and recording any features of archaeological interest. This follows the original specification as laid down in Appendix 1 of this report.

5 The desk-top assessment

- 5.1 The earliest known cartographic reference to the general area of Coed Du indicates that in 1771 Mynydd Cefn, as it was known at that time, belonged to John Davies Esq., though there is little information on land use at this time. An earlier map of 1738 (Fig. 3), whilst not depicting the precise area, does refer to the landholding of a Mr Davies - perhaps the same one or an ancestor - and also refers to the extraction of lead ore. This appears to be reasonably direct evidence for metal mining within the area of the survey during the first half of the eighteenth century.
- 5.2 The Enclosure Awards Map of 1799 for the joint parishes of Llanferres and Cilcain indicates that Coed Du was unenclosed at that time. There are, however, no references to mining in the area.
- 5.3 The Tithe Apportionment Map of 1841 (Fig. 4) again does not refer to mines in the area, but it does show three enclosed areas. Field 526 corresponds to the general outline of the pasture field that lies to the north-west of the area at present. Field 518 to the west of the area is described as arable whilst the enclosed area 517 is described as an area with waste in it.
- 5.4 Both enclosures 517 and 518 are again depicted on the First Edition Ordnance Survey map of 1871, but neither are shown on the Second Edition map of 1899 (Fig. 5) or on subsequent editions, indicating their probable abandonment in the intervening years.
- 5.5 Both editions of the Ordnance Survey show the locations of two lead shafts, both of which, are within the survey area and were identified during the course of the survey. Later geological maps (Smith 1921; Williams 1979) appear to indicate that this shaft may have exploited the main Cefn Cilcain lead-bearing vein.

- 5.6 Leases indicate that Cefn Cilcain was being worked as early as 1718, and the numerous shafts and open workings along the Cefn Cilcain vein point to mining activity, probably in the eighteenth century (Williams 1979). In the 1860s, the area was exploited by the Cefn Cilcen Mine Co. (Williams 1979), whilst in 1880 the vein was explored by a level driven from the River Alyn near Nant Alyn (SJ1931 6580; Smith 1921), probably by the Coed-du Hall Mining Company who possessed lands in the area in 1882 (Clwyd Record Office, Hawarden: D/GR/613). Also during the nineteenth century, the whole vein was supposed to have been mined, the extent of this work being defined on the ground by an open trench (Smith 1921).
- 5.7 Vertical aerial photography shows the area to be woodland apart from the pasture field to the north.
- 5.8 The Clwyd County Sites and Monuments Record and the Clwyd Metal Mines Survey 1993 (Frost 1994) record several sites associated with lead/silver mining in the Coed Du area (PRN 100244). Although all are related to the exploitation of the Cefn Cilcain vein and cross-course, none of the sites referred to appear to be located within the survey area.

6 The Field Survey (Fig. 2)

- 6.1 All of the features recorded during the field survey were clearly associated with lead mining, and consisted of infilled shafts or trial pits generally following two main alignments, summarised below. Other pits may also have followed an alignment but this could not be identified with the same degree of probability. With the exception of two isolated shafts, which appear on early editions of the Ordnance Survey, all of the features identified were previously unrecorded.
- 6.2 Alignment A (centred at SJ 1890 6635) contained eight features which followed an approximately south-east/north-west line extending from the southern edge of the survey area. Individual features within this line varied from an open rock-cut trench 28.0m long x max. 3.20m wide x max. 2.60m deep located at the southernmost end (SJ 1892 6663) to a 12.40m diameter shaft at the northern end (SJ1880 6638), defined by a raised rim of spoil surrounding it. This appeared to be one of the two shafts depicted on Ordnance Survey maps. Elsewhere along the line were six other circular workings varying in diameter from 3.10m to 14.00m and in depth from 0.50m to 2.80m.
- 6.3 Alignment B (centred at SJ 1901 6641) contained six features extending from the eastern perimeter of the survey area in an east-west line. These were all circular shafts or trials varying in diameter from 2.50m to 12.00m and in depth from 0.60m to 2.80m. This alignment continued beyond the boundary of the survey area.
- 6.4 A group of four circular pits (centred at SJ 1890 6639) varied in diameter from 3.00m to 8.20m diameter and in depth from 0.50m to 1.50m.

- 6.5 A single isolated mound located at SJ 1892 6642 in OS Field No 9348, 8.50m diameter and 1.50m high with a mature beech tree growing centrally within it in a shallow depression, probably represents an infilled shaft.
- 6.6 A single isolated shaft 10.50m in diameter defined by a raised rim of spoil around it, was located on the western boundary of the survey area (SJ 1885 6640).

7 Conclusions

- 7.1 It may be of some significance that no features which could be associated with mining were recorded in the woodland area to the east of OS Field No 9348, suggesting that the alignment of the Cefn Cilcain Vein is to the south of this field, possibly following approximately the course of Alignment B.
- 7.2 Alignment A may represent the line of a secondary deposition of lead ore, possibly a cross-course following a dip in the limestone along this line (Smith 1921).
- 7.3 It has not been possible to determine with any degree of accuracy a specific period during which the shafts recorded were formed nor has it been possible to comment on their internal form and their depths. Documentary sources suggest the existence of mines in the area during early post-medieval times but an even earlier period of activity cannot be dismissed.
- 7.4 The field survey revealed no traces of the two enclosures noted on the Tithe Apportionment (Nos 517 and 518) and, as suggested previously (Para. 5.1), this may be indicative of the level of activity in the area after 1871. There are no immediately apparent differences at present between the composition or age classes of the tree species in the areas where the enclosures would formerly have been located, and the surrounding woodland. This would seem to suggest that the present woodland may, to a large extent, be secondary growth, possibly following a large-scale clearance of the wood sometime after 1871 at which time the enclosures were extant according to the Ordnance Survey First Edition map.
- 7.4 No identifiable archaeological features other than those associated with mining were recorded in the survey.
- 7.5 The proposed quarry extension would be likely to damage or destroy all archaeological features identified within the proposal area.

8 Acknowledgements

- 8.1 The Clwyd-Powys Archaeological Trust would like to thank the staff of the Clwyd County Record Office, Hawarden, the National Library of Wales, Aberystwyth, the Royal Commission for Ancient and Historical Monuments, Aberystwyth for their assistance. The role of the Clwyd Archaeology Service is also acknowledged.

Fig. 3 is derived from a map copy kindly provided by Clwyd

Record Office.

9 Consulted Sources

9.1 Published Sources

Frost, P., 1994, *Clwyd Metal Mines Survey*, CPAT Report No. 88, Welshpool.

Rudeforth, C.C., Hartnupm R., Lea, J.W., Thompson, T.R.E., & Wright, P.S., 1984, *Soils and their uses in Wales*, Soil Survey of England and Wales, Bulletin No. 11.

Smith, B., 1921, *Lead and Zinc Ores in the Carboniferous Rocks of North Wales*, Memoirs of the Geological Survey, 19, HMSO.

Williams, C.J., 1979-80, The Lead Mines of the Alyn Valley *Flintshire Historical Society Journal*, 29, 51-87.

Takenote of lands in Cilcain, Coed-du Hall Mining Co. 1882 Clwyd Record Office D/GR/613

9.2 Cartographic Sources

Estate Map of Commons and Wastes in Rhuddlan and Coleshill Hundreds, 1738 (Clwyd Record Office, Hawarden: D/GR/1679)

Lands of Watkin Williams Esq. 1771 (NLW< Aberystwyth: Pen-y-Cefn Farm, Peniarth Deposit Volume 4, 27-28)

Llanferres and Cilcain Parishes Enclosure Awards Map 1799 (Clwyd Record Office, Hawarden: OS/DE/8).

Cilcain Parish Tithe Map 1841 (Clwyd Record Office, Hawarden: NT/M/36A)

Ordnance Survey 1:2500 1st Edition 1876 Flintshire Sheet XIII.2

Ordnance Survey 1:2500 2nd Edition 1899 Flintshire Sheet XIII.2

Ordnance Survey 1:2500 3rd Edition 1912 Denbighshire Sheet XIII.2

9.3 Vertical Aerial Photography

RAF 3G/TUD/UK 192/6010 and 6011 (09-05-1946) Scale 1:10,000)

Appendix 1

EXTENSION TO TRIMM ROCK QUARRY, CILCAIN, CLWYD

SPECIFICATION FOR AN ARCHAEOLOGICAL FIELD EVALUATION BY CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

1.1 The proposed Quarry extension affects a block of land of approx. 1.2Ha.

1.2 The land affected is predominantly under woodland and has not been subject to an archaeological survey. The area does lie, however, in an area of high archaeological potential being close to an area of Neolithic and Bronze Age activity represented by barrows and mounds, as well as industrial activity represented by bell pits, shafts and associated structural remains.

1.3 The Archaeology Section of Clwyd County Council in their capacity as archaeological curators for the county have determined that a field evaluation is necessary to assess the implications of the proposed development on the archaeological resource. Accordingly a brief (dated 28th February) has been prepared by Clwyd County Council Archaeology Service which describes the scheme of archaeological works required.

2 Objectives

2.1 The objectives of the evaluation are:

2.1.1 to reveal by means of a combination of desk-based assessment and survey, the nature, condition, significance and, where possible, the chronology of the archaeology within the area of the proposed development in so far as these aims are possible;

2.1.2 to record any archaeology revealed by 2.1.1 above;

2.1.3 to prepare a report outlining the results of the field evaluation and incorporating sufficient information on the archaeological resource for a reasonable planning decision to be taken regarding the archaeological provision for the area affected by the proposed development.

3 Methods

3.1 Stage one of the evaluation will involve the examination of all the readily available primary and secondary records relating to this part of the town, including documentary and cartographic sources. Archives and repositories will include the County Sites and Monuments Record, the County Record Office, The National Library and the National Monuments Record housed by the RCHAM(W) in Aberystwyth.

3.2 Stage two will take the form of a ground survey over the entire affected area (subject to quarry safety regulations and constraints) at a time mutually convenient to the developers and contractors.

3.3 The evaluation will be undertaken using standard evaluation procedures:

3.3.1 walking the area in transects of no more than 20m intervals;

3.3.2 recording of any archaeological features on site visit forms. Information to include a written description, dimensions and an interpretation where appropriate. These records will then be passed to the area Sites and Monuments Record (CAS evaluation brief p4, para 5);

3.3.3 recording of all archaeological features by colour and black and white photography. All photographs will then reside in the area Sites and Monuments Record (CAS evaluation brief, p4, para 5);

3.4 Following the on-site work an illustrated and bound report will be prepared according to the principles laid out in the Evaluation Brief (page 4). This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Excavation; Conclusions and References, together with appropriate appendices on archives and finds.

3.5 The site archive will be prepared to specifications laid out in Appendix 3 in the Management of Archaeological Projects (English Heritage, 1991).

4 Resources and Programming

4.1 The evaluation will be undertaken by a small team of two skilled archaeologists under the direct supervision of an experienced field archaeologist, who will also be responsible for undertaking the desk-based assessment. Overall supervision will be by Dr A Gibson, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists.

4.2 All report preparation will be completed by the same field archaeologist who supervised the evaluation.

4.3 It is anticipated that the assessment and evaluation will take no more than 10 working days in all (including the report preparation) and that the subsequent report would be prepared immediately after the fieldwork, dependent on the client's instructions and the arrangement of a suitable timetable. The date of commencement, at the time of writing, has yet to be agreed with the client, and will be dependent on the state of the site. It is envisaged that work could be commenced within 5 working days of receipt of a written acceptance of CPAT's quotation, and terms and conditions. The archaeological curator will be informed of the detailed timetable and staffing levels when agreement has been reached with the client.

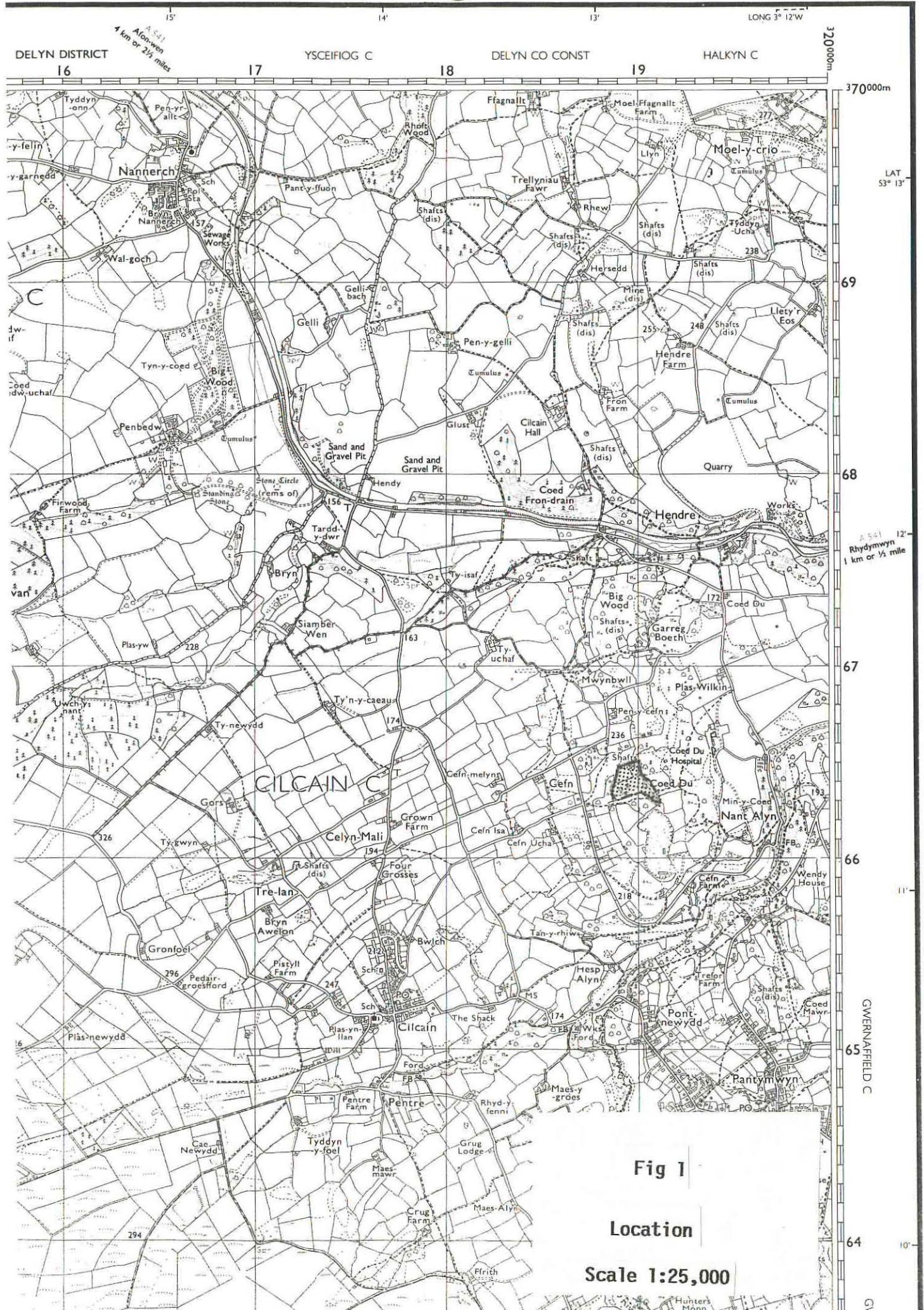
4.4 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.

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

A.M. Gibson
7th March 1995



PATHFINDER 772 (SJ 06/16)



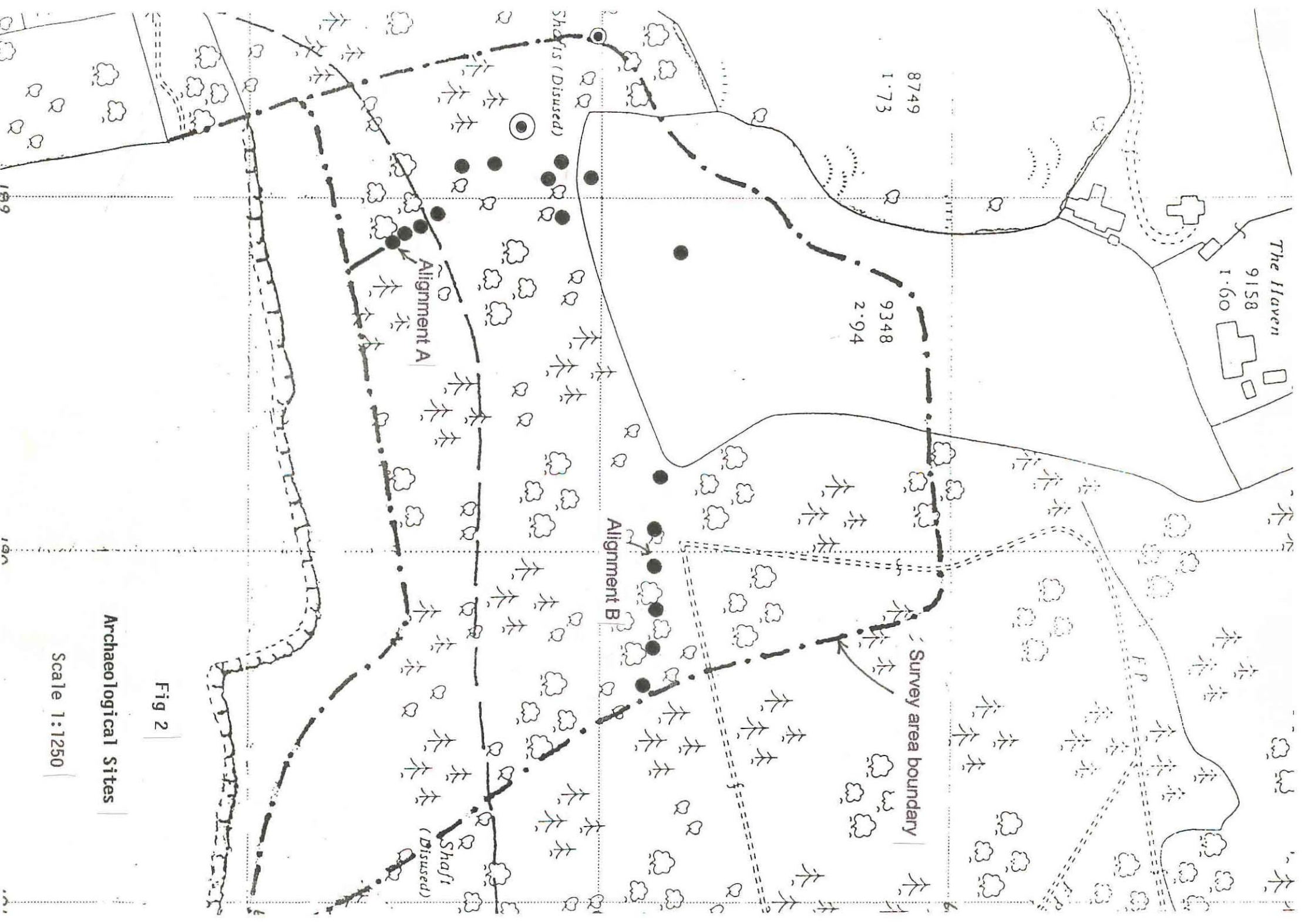
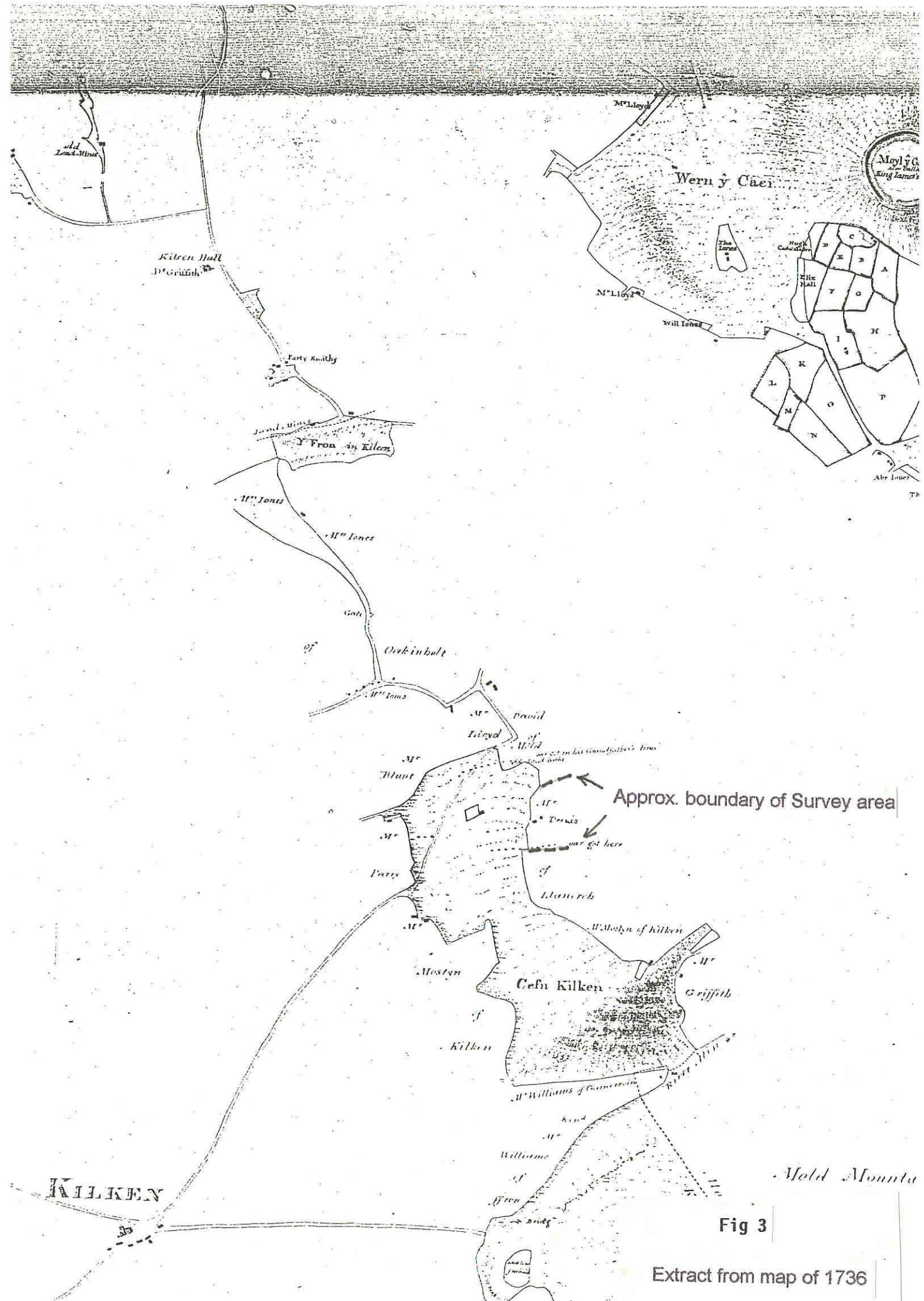
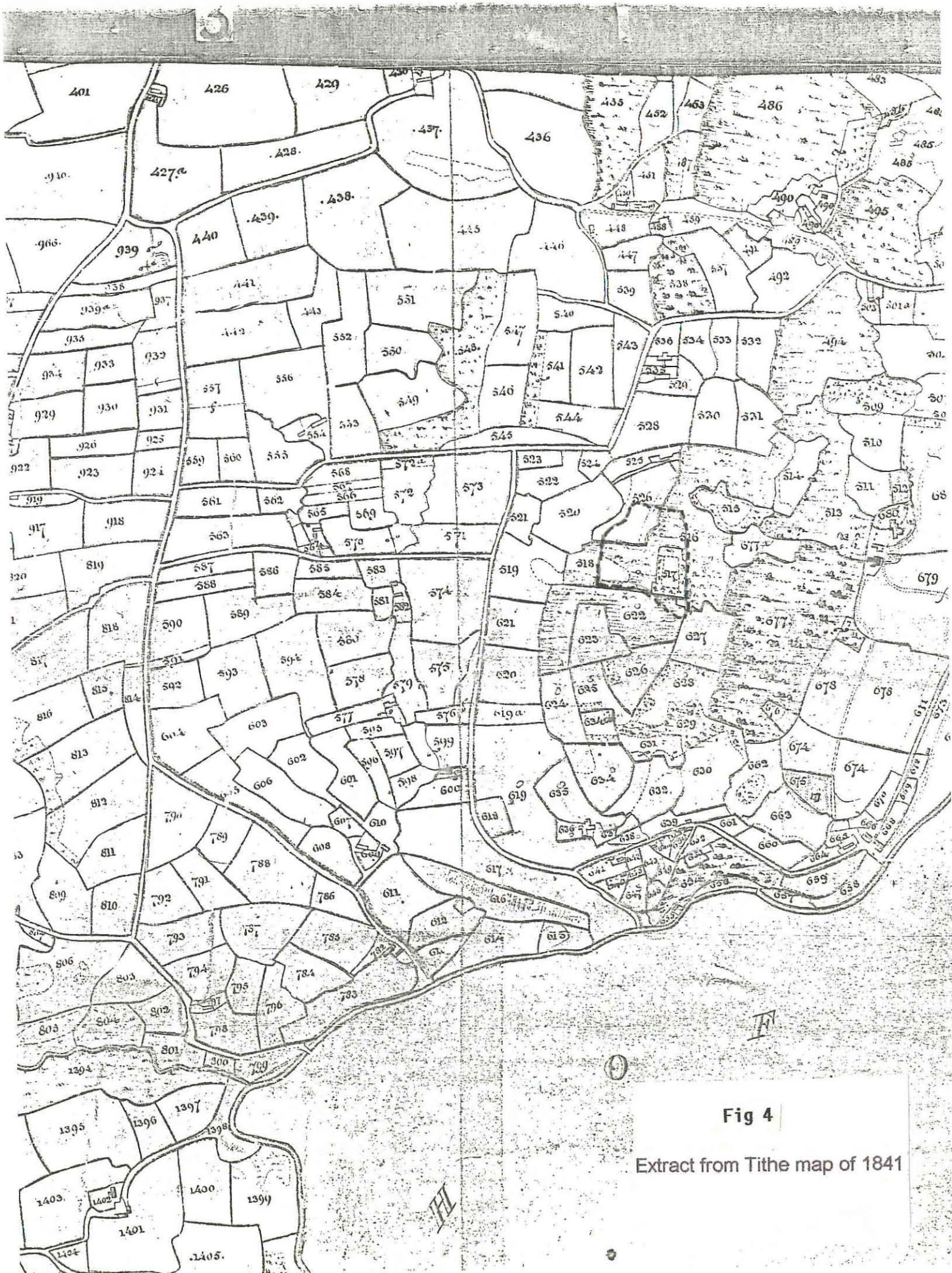


Fig 2

Archaeological Sites

Scale 1:1250





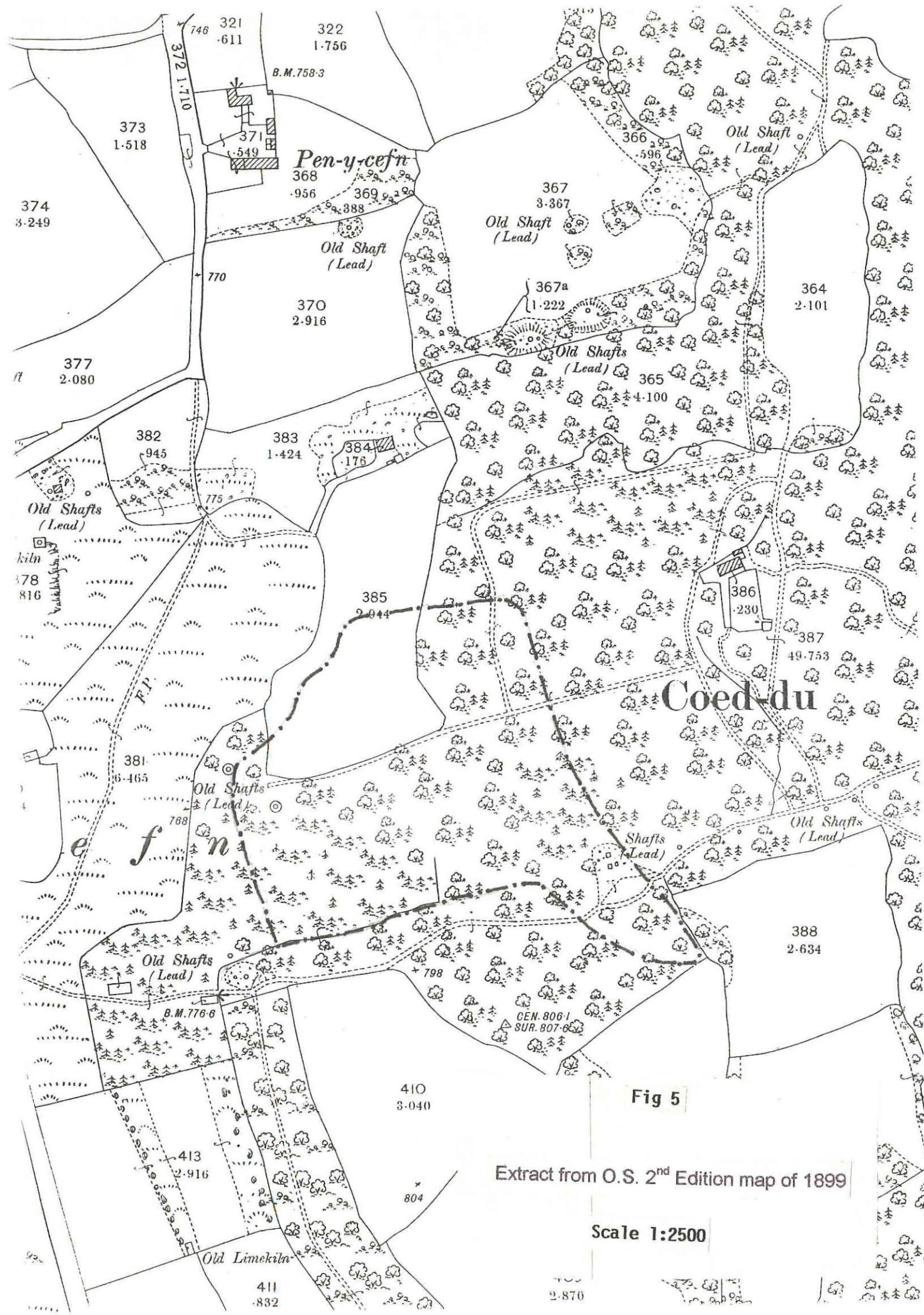


Fig 5

Extract from O.S. 2nd Edition map of 1899

Scale 1:2500

2-870