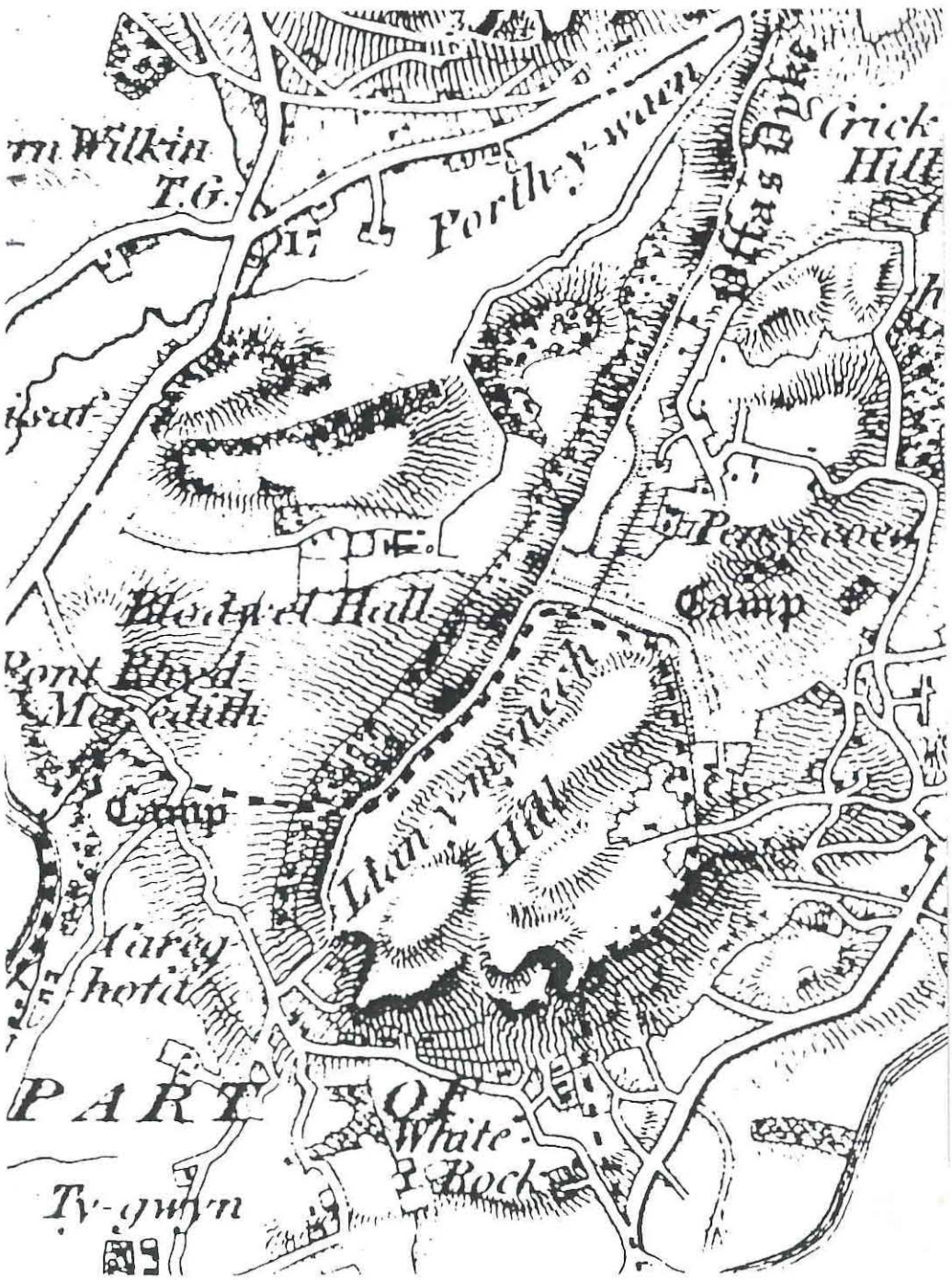
THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

13th Green, Llanymynech Golf Club, Powys

ARCHAEOLOGICAL ASSESSMENT



CPAT Report No 336

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ARCHAEOLOGICAL ASSESSMENT

W.G.Owen
October 1999

Report for Llanymynech Golf Club

The Clwyd-Powys Archaeological Trust
7a Church Street, Welshpool, Powys, SY21 7DL
tel (01938) 553670, fax (01938) 552179

CPAT Report Record

Report and status

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7a Church Street Welshpool Powys SY21 7DL
tel (01938) 553670, fax 552179

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ILLUSTRATIONS

1 INTRODUCTION

1.1 The proposed development at Llanymynech Golf Club involves a reconstruction of the 13th green. This lies within the area of Llanymynech Hillfort which is designated as a monument of national importance (SAM Mg 30).

1.2 The Inspectorate of Cadw: Welsh Historic Monuments, in their capacity as archaeological advisers to the National Assembly for Wales, had determined that an archaeological response was necessary to assess the implications of the proposed development on the archaeological resource, and a specification was prepared detailing the scheme of archaeological works required.

2 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1 The evaluation site lies within the area of the 13th green (SJ 2609 2194), located close to the western edge of the hillfort (fig. 1) on a slight south-facing slope overlooking steep slopes to the south and west at a point where Offa's Dyke follows the edge of the scarp.

2.2 Geologically, Llanymynech Hill marks the southernmost point of a band of Lower Carboniferous Limestone which extends south from the North Wales coast at Prestatyn, Flintshire. Outcrops of this formation are commonly visible throughout the hillfort. In places the limestone is altered to dolomites with mudstone bands, and both lead and copper ores, with cerrusite and malachite as secondary oxidation products, occur in a lode which strikes north-north-east from underground workings known as the Ogof Mine at SJ2660 2222. Soils in lower-lying areas and on terraces between outcrops characteristically overlie drift derived from Palaeozoic sandstone and mudstone (Rudeforth *et al,* 1984).

3 HISTORICAL BACKGROUND

3.1 Llanymynech hillfort lies on a prominent outcrop of carboniferous limestone on the western edge of the Shropshire Plain overlooking the confluence of the Vyrnwy, Tanat and Cain Rivers to the south-west and the Severn Valley to the south-east. The three-kilometre circuit of the ramparts encloses an area of approximately 57 ha, making it one of the largest hillforts in England and Wales. Although the majority of the hillfort lies within Wales, the English border follows the line of the defences on the eastern side, with the north-east defences lying across the border in Shropshire.

3.2 Archaeological investigation of the hillfort has so far been rather limited. In 1981 a section through the ramparts was recorded during the laying of a pipe trench adjacent to the approach road to the golf-course, which revealed the stone rampart and ditch of the inner defences, and metalworking debris behind the rampart. Radiocarbon dating of charcoal associated with two separate pits showed that the metalworking could have been undertaken in a period from the 4th century BC to the 1st century AD (Musson 1981; Musson and Northover 1989, 20).

3.3 Apart from the study of peat deposits in a pond (at SJ 269221; Martin 1992), the interior of the fort the has been the subject of a number of small-scale evaluations in recent years, conducted in connection with applications for scheduled monument consent. An evaluation close to the clubhouse in 1995 revealed no structural evidence of prehistoric occupation, but did recover sherds of Iron Age pottery, metalworking debris and calcined bone from a possible old ground surface (Thomas 1995). Further investigation within the same area in 1997 (Owen 1997) revealed several features of likely Iron Age date, including the inhumation of a small child which was radiocarbon dated to between 770 BC and 370 BC (Owen, 1997).

3.4 Llanymynech Hill has a long history of copper and lead mining dating back to at least the Roman period (Walters 1993). Quarrying of exposed limestone outcrops has also occurred no doubt over long periods, though precise definition is impossible.

4 EXCAVATION (figs 3 and 4)

4.1 The archaeological evaluation was carried out between the 4th and 11th October 1999. A T-shaped trench located within the area of the present green (fig. 2; plate 1) was hand excavated following the mechanical stripping of the turf. Both arms of the trench measured 10 x 1.2m, and were excavated to a maximum depth of 0.30m, onto the surface of the first significant archaeological horizon. Features revealed at this level were sufficiently investigated to determine their likely date and function. A full written, drawn and photographic record was maintained throughout. Numbers in brackets in the following text refer to individual context records in the site archive

4.2 Immediately below the turf (1) the soils consisted of layers constituting the subsurface make up of the green (contexts 2, 3 and 4). Below these, at a depth of 0.32m, the natural subsoil (5) was exposed, consisting of orange-red and grey clay. Two box sections were excavated through the clay confirming that this was the natural, undisturbed subsoil. Several flints and fragments of metallurgical residues were recovered from surface of the natural subsoil, mainly in the north-west/south-east aligned trench.

4.3 Five land drains (contexts 11, 13, 15, 17 and 20) were visible cut through soil layer 4 and into the surface of the natural, presumably constructed to facilitate the drainage of the green. Three of the drains were infilled with angular limestone fragments with a perforated plastic drainage pipe at the base. The other two (13 and 15) were presumably earlier, lacking the plastic drainage pipe and with one trench (15) clearly being superseded by another (17).

4.4 A curving gully (6; plate 2) was identified in the south-east corner of the excavation, sealed beneath soil layer 4 and cutting into the natural subsoil (5). The gully was of generally rounded profile, up to 0.46m wide and between 0.16m and 0.3m deep, and had been cut by at least one of the land drains (11; plates 3 and 4). The gully was filled by an upper layer of brown loam (30), which contained several flints, overlying a thin band of reddish clay (31). Beneath this layer the lower fill (7) contained large amounts of soft, degraded charcoal and well-preserved animal bone, some of which was burnt, as well as fragments of furnace lining and metallurgical residues. Towards the south-east corner of the excavation, the base of the gully suggested two adjoining butt ends (see fig. 3), the outer edge of the gully running along the edge of the excavation (NB the gully does not therefore appear in section fig. 4).

4.5 A shallow pit (10; plate 5), up to 0.72m wide and 0.24m deep, was identified below layer 4, cutting into the natural subsoil and extending beyond the north-east section of the excavation. The upper fill (8) consisted of a brown clayey loam containing small degraded rock fragments whilst the lower fill (9) consisted of a dark grey loam containing abundant charcoal with several angular stones mainly at the base.

4.6 Several features were revealed lying within the arc of gully 6, cutting into the natural subsoil (5) and sealed beneath layer 4. Towards the south-east corner a pit (28), at least 0.68m across and 0.10m deep, extended beyond the limit of excavation. The fill (29) contained abundant stones within a loam matrix. A similar feature (22; plate 6) was identified in the south-west corner of the excavation, cut by land drain 20 and extending beyond the limits of the excavation to the south and south-west. There was insufficient evidence to determine the likely dimensions of the feature. The fill (23) consisted of tightly packed angular stones within a dark brown loam matrix.

4.7 A third pit (26), up to 0.82m wide and 0.26m deep with a flat base, extended beyond the north-west section of the excavation. The fill (27) contained abundant stone up to 0.3m diameter within a matrix of mixed red and orange clay and dark grey-brown loam. No dating evidence was recovered. The pit was cut by an irregular-sided gully (24) up to 1.54m across and 0.30m deep. The fill (25) consisted of a mid-brown clay-sand loam containing stone and abundant charcoal throughout. Finds recovered included animal bone, fragments of furnace lining, an iron object and a quern rubbing stone in three fragments.

4.8 The only other features recorded were numerous former golf holes *c.* 0.1m in diameter, which had been cut into the natural subsoil (see plates 1 and 6).

5 FINDS

5.1 The evaluation produced a significant assemblage of artefacts all of which could be associated with prehistoric occupation. The finds have all been processed and stored in an appropriate manner, and although specialist analysis is beyond the scope of the present evaluation, a summary of the finds is presented below.

5.2 A total of 16 flints were recovered from the surface of the natural subsoil and from the fill of gully 6. These included one flake with probable secondary working, six flakes or possible blades, one core, seven chips and one chunk. The lithics assemblage, although broadly prehistoric, would require specialist analysis in order to provide closer dating and identification.

5.3 An upper stone from a saddle quern, measuring 25.7cm long, up to 10.5cm wide and 6.7cm thick, was recovered from the fill of pit 24. The stone showed considerable wear and polishing on three surfaces and had been broken into three fragments. There were signs of recent damage to the stone which appears to have been caused by hollow-tined spiking of the green.

5.4 A single iron object (41g) was recovered from pit 24. Although corroded, it was possible to determine that the object was 14.3cm long with a square section 0.7cm across, flattened at either end. The object would need to be x-rayed before an identification could be attempted.

5.5 A significant quantity of metalworking debris was recovered from the fills of gully 6, and pits 10, 22 and 24. This included fragments of furnace lining (131g), metallic slag (183g), a possible crucible fragment from pit 24, and fragments of fired clay (44g). Bulk soil samples were taken from gully 6 and pits 22 and 24, although these remain unprocessed.

5.6 Several contexts contained significant quantities of animal bone which was generally well preserved, with some being burnt or calcified, and some with possible butchery marks. The majority of the bone came from the main fill of gully 6 (7) as well as from pit 24.

6 CONCLUSIONS

6.1.1 The evaluation has demonstrated that important archaeological deposits lie beneath the area of the 13th green. The depth of these deposits varies with the slope of the green. At the centre of the green, towards the south-eastern end of the excavation, the archaeology lies in places at a depth of no more than 0.16m below the surface. At the upper end of the green, the archaeology is buried slightly deeper, lying beneath up to 0.30m of overburden.

6.1.2 It is therefore clear that the impact of any future ground disturbance on the archaeological deposits will depend on its location. While any excavation which extends below the surface of the natural subsoil, which varies from 0.3 to 0.16m below ground level, will undoubtedly have implications for the archaeological resource, any raising of the present level of the green would aid in the protection of the archaeology.

6.1.3 The cutting of land drains in the past (plates 3, 4 and 6) has caused some damage to the archaeology, which appears to have been further damaged to some extent by the cutting of golf holes (see plates 1 and 6) and attempts to improve drainage on the green by hollow-tine spiking, although this is only in evidence where the overburden is at its most shallow.

6.2.1 The evaluation has produced important new evidence for occupation within the hillfort. The lithic assemblage clearly demonstrates that the hilltop was occupied during the Bronze Age, with flint knapping taking place to produce a range of tools.

6.2.2 The majority of features identified appear to relate to the occupation of the hillfort, presumably during the Iron Age. The curving gully (6) is likely to be a drainage feature surrounding a round hut which would have been up to 13m in diameter. Three pits (22, 26, 28) located within the area of the hut were all packed with stone and may have been post holes for the main structural timbers. There is considerable evidence for prehistoric metalworking, with fragments of furnace lining and part of a crucible, together with metallurgical residues, demonstrating that copper smelting took place somewhere in the immediate area. The significance of these deposits can only be determined through

specialist analysis, although obviously adding further to the existing evidence uncovered in 1981 for metalworking within the hillfort from the 4th century BC to the 1st century AD (Musson 1981; Musson and Northover 1989, 20).

6.4 The artefact assemblage from the evaluation has considerable potential for further analysis, and a study of the lithics, quern, and metallurgical residues would undoubtedly add significant evidence relating to occupation within the hillfort. It is also likely that carbonised plant remains survive within soil samples taken from several features, the study of which could provide importance evidence for the palaeoeconomy and environment, as well as providing material suitable for radiocarbon dating.

7 ACKNOWLEDGEMENTS

Thanks are due to the following: Richard Hankinson and Les Bognar for assisting with the excavation; Nigel Jones for assistance with the report; Bill Britnell for a preliminary identification of the lithics; Mark Walters for identifying the metallurgical residues; Alan Lewis, Llanymynech Golf Club for his assistance and co-operation.

8 REFERENCES

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Musson, C R, 1981, Llanymynech Hillfort, *Archaeology in Wales* 21, 31.

Musson, C R, & Northover, J P, 1989, Llanymynech hillfort, Powys and Shropshire: observations on construction work, 1981, *Montgomeryshire Collections*, 77, 15-26.

Owen, W G, 1997, *Llanymynech Golf Club: archaeological excavation and watching brief*. CPAT Report No 228.

Thomas, D, 1995, *Llanymynech Hillfort, Powys: archaeological evaluation.* CPAT Report No 136.

APPENDIX 1

SITE ARCHIVE

Site records

31 Context record forms
2 A1 site plans
1 A1 archive plan
1 black and white negative
1 Colour slide
1 Colour print
Photographic catalogue

Finds

Context 4 (surface of natural)
- 6 flint chips
- 4 flint flakes or blades
- 1 flint core
- 1 utilised flint with probable secondary working
- 74g metallurgical residues

Context 7 (fill of gully 6)
- 1 flint chunk
- 2 flint flakes
- 1 flint chip
- frags of furnace lining
- metallurgical residues
- animal bones

Context 9 (fill of pit 10)
- 4 frags of fired clay,
- metallurgical residues

Context 25 (fill gully 24)
- 1 saddle quern upper stone
- 1 crucible fragment
- metallurgical residues including copper
- animal bone

Soil samples
- context 7, 3 bags and one bulk sample
- context 23, 1 bag
- context 25, 1 bag

APPENDIX 2

LLANYMYNECH GOLF CLUB, POWYS
SPECIFICATION FOR A CONDITIONAL ARCHAEOLOGICAL EVALUATION
BY THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

1.1 The proposed development at Llanymynech Golf Club involves a reconstruction of the 13th green.

1.2 This area lies within the area of Llanymynech Hillfort which is designated as a monument of national importance by the Secretary of State for Wales.

1.3 The Inspectorate of Cadw: Welsh Historic Monuments in their capacity as archaeological advisers to the Secretary of State for Wales have determined that an Archaeological response is necessary to assess the implications of the proposed development on the archaeological resource. Accordingly, archaeological conditions have been incorporated within the Scheduled Monument Consent which describes the scheme of archaeological works required.

2 Objectives

2.1 The objectives of the archaeological works are:

2.1.1 to excavate manually two trenches. Trench A to be located transversely across the slope, measuring 10m long and 1.0m wide to the depth of the shallowest archaeological levels, or to a maximum depth of 1.0m. Trench B to be located along the slope measuring 10m long and 1.0m wide to the depth of the shallowest archaeological levels, or to a maximum depth of 1.0m at the upper end, tapering to ground level at the lower end. Any archaeological features will be recorded in plan and photographed, but not disturbed. The trenches will be accurately planned and located where possible to features depicted on a modern Ordnance Survey map.

2.1.2 to prepare a report outlining the results of the watching brief.

3 Methods

3.1 The evaluation will be carried out according to the conditions contained within the SMC.

3.2 The turf will be stripped using a turf cutter provided by the Golf Club and stacked carefully adjacent to the trench for later returfing. The trenches will be hand excavated as defined above, with spoil stored temporarily on boarding provided by the Golf Club adjacent to the trenches. Reinstatement and returfing will be undertaken by the Golf Club, as agreed following discussions with Mr A. Lewis. Trenches will be accurately located using an EDM.

3.3 Following the on-site work an illustrated and bound report will be prepared according to the principles laid out in the SMC. is will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Catalogue of sites identified with notes on their condition and significance, Conclusions and Recommendations and References, together with appropriate appendices on archives and finds.

3.4 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 team of two skilled and experienced archaeologists. Overall supervision will be by MR R.J.Silvester, 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 conducted the watching brief.

4.3 It is anticipated that the evaluation will take no more than six days in all and that the subsequent report would be prepared immediately thereafter, 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 and negotiated access. 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.

N.W.Jones
26th April 1999

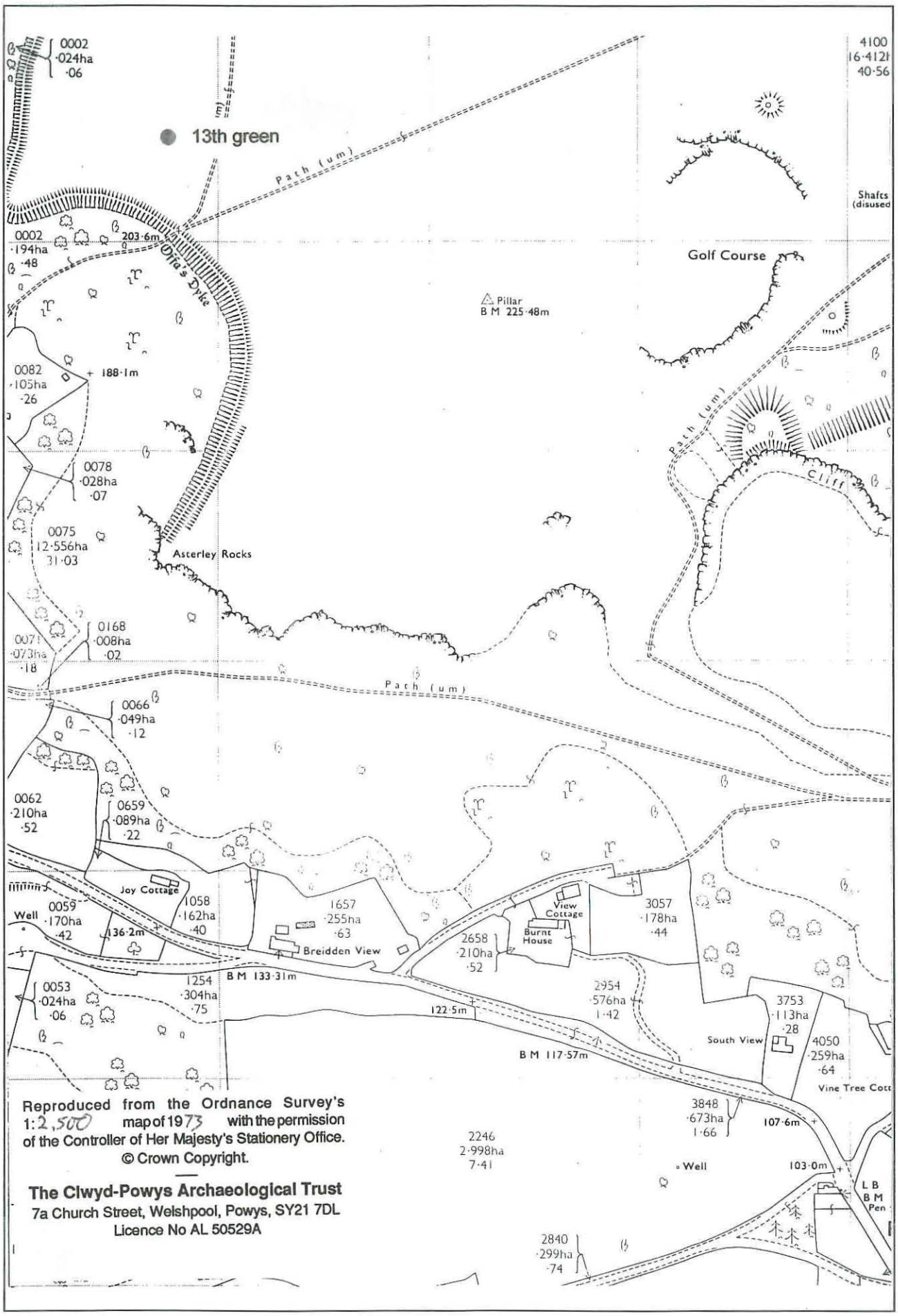

Fig. 1 Site location. Scale 1:2,500

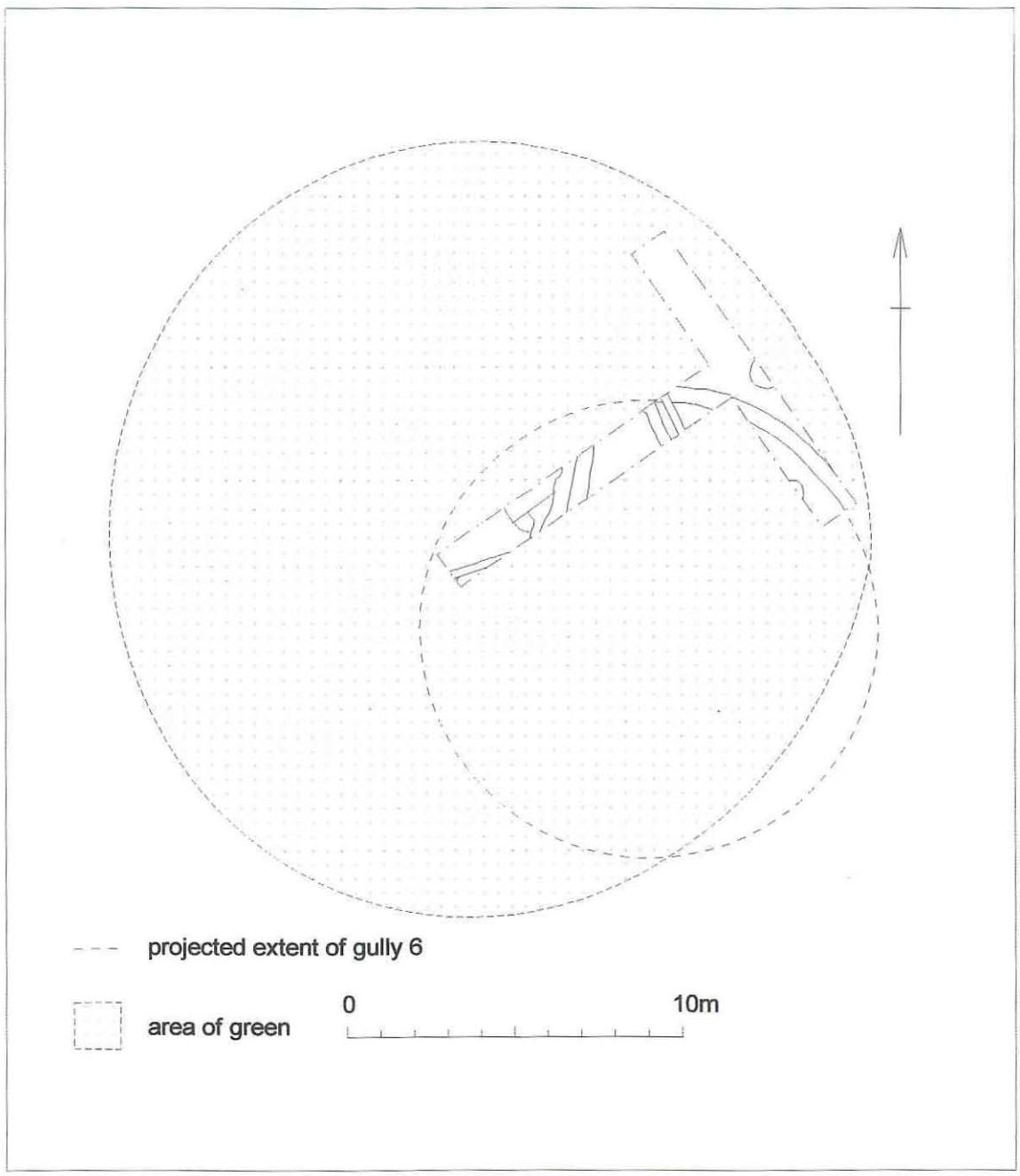

Fig. 2 Plan of the 13th Green and trench location, scale 1:200

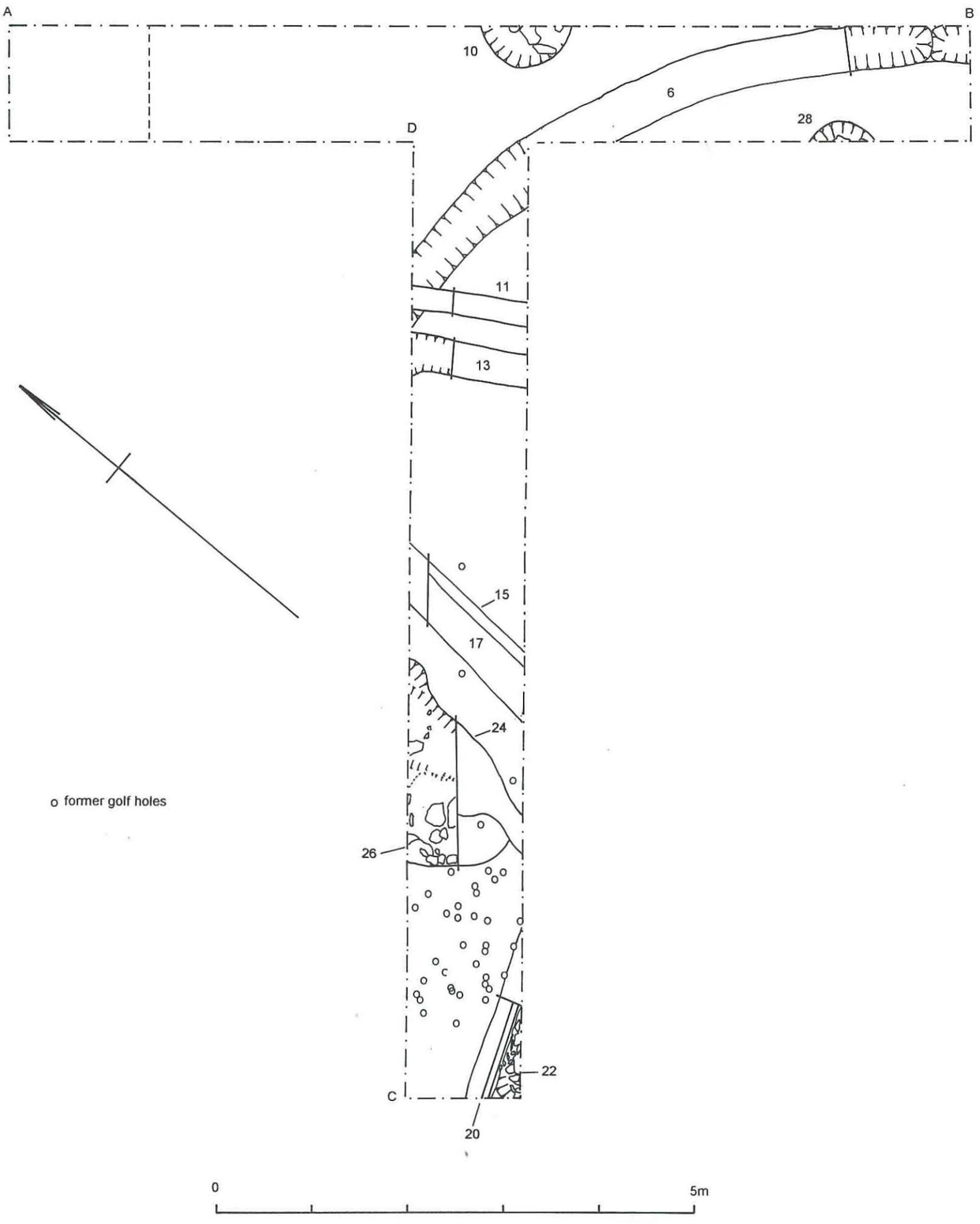

Fig. 3 Excavation plan, scale 1:50

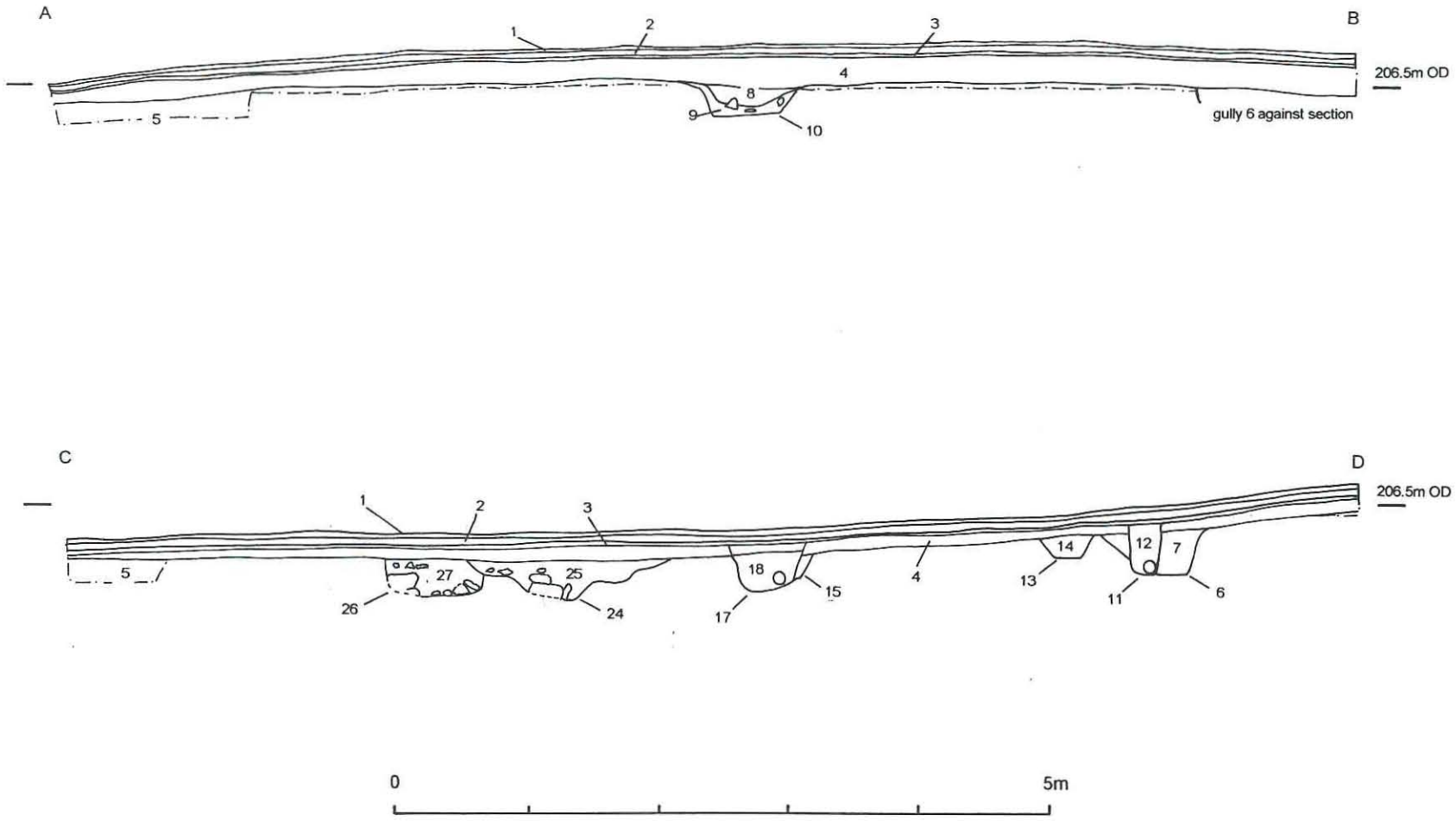

Fig. 4 Excavation sections, scale 1:50

Plate 1 General view of the excavation from the SW. Photo CPAT 856.16

Plate 2 Gully 6 and pit 10 from SE. Photo CPAT 856.3

Plate 3 Gully 6 and land drains 11 and 13 from SW. Photo CPAT 856.11

Plate 4 Gully 6 and land drains 11 and 13 from SE. Photo CPAT 856.9

Plate 5 Pit 10 from SW. Photo CPAT 856.8

Plate 6 Pit 22 and land drain 20 from NW. Photo CPAT 856.20