Birmingham University Field Archaeology Unit

**Report No. 165**

**June 1991**

# TITTERSTONE CLEE HILLFORT, BITTERLEY, SHROPSHIRE

## An archaeological evaluation

1991

by A.E. Jones

For further information please contact:
Simon Buteux (Manager), Peter Leach or Iain Ferris (Assistant Directors)
Birmingham University Field Archaeology Unit
The University of Birmingham
Edgbaston
Birmingham B15 2TT
Tel: 021 414 5513

# TITTERSTONE CLEE HILLFORT, BITTERLEY, SHROPSHIRE

An Archaeological Evaluation

1991

## CONTENTS



## Figures

# TITTERSTONE CLEE HILLFORT, BITTERLEY, SHROPSHIRE

## An Archaeological Evaluation

## 1991

### 1.0: INTRODUCTION

This report describes the results of an archaeological evaluation within part of the interior of Titterstone Clee Hillfort, Bitterley, Shropshire (Figure 1A: centred on NGR. SO 595779: Shropshire SMR. No. SA427) and their implications. In January 1991 Birmingham University Field Archaeology Unit (BUFAU) was commissioned by the Meteorological Office to undertake the evaluation, in advance of the proposed construction of a new weather radar installation.

The hillfort is located 8km northeast of Ludlow and 2km northwest of Cleehill village (Figure 1B). The area evaluated is located on the northern edge of the plateau at the summit of Titterstone Clee Hill, to the east of the existing Civil Aviation Authority and Meteorological Office radar installations (Figure 2). The area of the Iron Age hillfort is a Scheduled Ancient Monument (Shropshire A.M. No. 25).

The aims of the evaluation were to assess the nature, extent and significance of any buried archaeological deposits within the area of the proposed new radar installation. In particular, the six evaluation trenches were intended to seek a suitable area for the development without significant archaeological deposits.

## 2.0: THE SITE AND ITS SETTING (Figure 1A, Figure 1B)

### 2.1: The archaeological setting

In the prehistoric period the Clun-Clee Ridgeway (Figure 1A) provided an important east-west route across south Shropshire, between Clun to the west and the River Severn at Bewdley to the east. Its course followed the line of the present road on to the western slope of Titterstone Clee, and over the hill towards Farlow to the east. The course of a second prehistoric trackway, described by O'Neil (1934), lies to the south of Titterstone Clee. The Ridgeway was perhaps the most important element of the Neolithic and Bronze Age landscape around Titterstone Clee. Its use as an important trading route is suggested archaeologically by the recovery of artefacts along its line, presumably lost or deposited by travellers: Bronze Age stone implements from Bitterley, west of Titterstone Clee, and from Farlow to the east; decorated flat-axes of Irish type and a palstave from Titterstone Clee itself. The location of a Bronze Age pottery production centre near Titterstone Clee is suggested by the excavation at the Bromfield cremation cemetary west of Ludlow of pottery tempered with Dolerite from the Titterstone Clee area (Stanford 1980). Contemporary round-barrow cemeteries have been located at Hoar Edge and Coreley (Stanford 1980). Other Bronze Age funerary monuments were located near the summit of Titterstone Clee: a barrow, the 'Earth-Circle', was excavated by O'Neil (1934), and an unexcavated cairn nearby, the 'Giant's Chair', may also be a funerary monument of similar date.

### 2.2: Hillforts

Hillforts are amongst the most numerous prehistoric monuments in the Welsh Marches, and are certainly the most impressive. They were constructed in the Late Bronze Age and Iron Age with fortifications of earth, timber or stone, exploiting the natural terrain of hilltops to provide defence from attack. However, it has been suggested that social considerations, such as prestige, may also have been important in their construction. The defences typically consist of one or more concentric rampart, of earth or stone construction, often formed of material dug out of an outer defensive ditch.

The scale of hillfort construction implies a complex social organisation, requiring a considerable input of labour. Where extensive excavation has been possible within the interior, complex arrangements of internal buildings of stone or timber have often been found, such as at Croft Ambrey (Stanford 1980). The more isolated forts of the Marches, such as Titterstone Clee and the Wrekin have been interpreted as temporary refuges for livestock and herders because of their large size, high altitude, and relative lack of artefactual evidence (Cunliffe 1978).

**2.3: Titterstone Clee hillfort (Figure 2)**

Titterstone Clee Hill is formed of a mass of volcanic basalt rock deposited in the Carboniferous period over Devensian Old Red Sandstone (Hains and Horton 1969). It is an imposing landmark rising to 533m AOD, described by Leland as follows:

> 'The highest part in Cle Hills is called Tyderstone. In it is a fayre playne and a fountaine in it' (quoted in O'Neil 1934).

Most of the southern defences at Titterstone have been destroyed by quarrying, but the line of the eastern and southern defences remains visible as a tumbled stone scree. The first accurate plan of the hillfort was surveyed by O'Neil (1934; 1934a), who excavated a number of sections across the defences and examined the northern and southeastern entrances. The defensive circuit encloses an area of 28 hectares, following the natural terrain, and improves its natural defensive topography. O'Neil identified four distinct periods of activity. In Period 1 a timber-revetted earth rampart was constructed with timber entrances. During Period 2 the defences fell into disrepair, and were partly dismantled. The earthen defensive circuit was rebuilt in stone in Period 3, the gateways were remodelled, and two stone and timber guard-chambers were constructed flanking the main southeastern entrance. In Period 4 the defences were slighted, but the hillfort continued in use. O'Neil also investigated a number of depressions on the hilltop, hitherto interpreted as hut-circles, but they all proved to be geological in origin. No artefacts of Iron Age or Roman date were recovered, but an Anglo-Saxon iron spearhead of the

Migration Period was found nearby during quarrying.

A notable aspect of O'Neil's excavations was the absence of datable artefacts, a fact interpreted by the excavator as indicative of only intermittent or limited settlement (O'Neil 1934a); thus the distinct periods of activity recognised, based on the structural history of the defences, could not be dated. The structures can, however, be related to similar structures which have been dated at other hillforts excavated more recently. The inturned entrance at Titterstone Clee may be paralleled with a similar arrangement at the Breiddin, Powys (Musson 1976), and Ffridd Faldwyn, Powys (O'Neil 1943), datable to the Late Bronze Age, while the two guard-chambers at Titterstone Clee closely parallel the later arrangement at the Wrekin, Shropshire, dated to the 4th century BC (kenyon 1942; Stanford 1980).

**2.4: Evaluation methodology** (Figure 2, Figure 4)

The terms of the scheduled monument consent and the brief for the evaluation, prepared by English Heritage, specified the manual excavation of six equally-spaced trial trenches, 6m apart, each measuring 10m by 2m. All trenches were to be placed transversely across a line measuring 257 degrees - 077 degrees through the existing Civil Aviation Authority Primary Radar, and be located between 100m and 140m to its ENE. It was necessary to re-position the area of the evaluation by 6m to the east to avoid a steep natural scarp within the western margin of the area originally determined. The evaluation trenches were re-located accordingly within an area measuring between 106m and 148m from the primary radar, following the 257-077 degree line.

In each trench the removal of the turf by hand was followed by the systematic manual excavation of deposits above the natural subsoil. The upper horizon of the natural subsoil was cleaned in the areas where archaeological features or deposits were absent. Test-pits were dug in Trenches I and IV to determine the depth of the upper subsoil deposits. Excavation of archaeological deposits and features was limited to the definition of their upper levels, without further excavation of intact

deposits, except insofar as was required to understand their significance. A sample equivalent to 10 square metres of overburden (from Trench IV) was dry-sieved on site through a 5mm mesh to provide a controlled sample for the recovery of artefacts. Trenches I, III, IV and V measured 2m by 10m; Trench II measured 2m wide but was extended to a length of 12m; Trench VI measured 2m by 8m. Recording was by means of written pro-formas, accompanied by plans, sections and photographs, held in the archive.

## 3.0: THE ARCHAEOLOGICAL RESULTS

### 3.1: Trench I (not illustrated)

The lowest level excavated in this trench was the upper horizon of the lower natural subsoil, a hard, yellow-orange silt-clay (1004) containing angular basalt blocks, exposed in a sondage 1m square in the northeast of the trench. The upper horizon of the upper natural subsoil (1003), a mottled, iron-panned, orange-brown clay-silt, 0.1m deep and containing angular fragments of basalt, was exposed over the remainder of the trench. This layer was sealed by a dark brown silt-clay (1002) containing irregularly-distributed basalt blocks. A shallow organic lens of grey-brown silt (1001) above formed a relict turf-line, beneath the modern turf (1000). No archaeological features or deposits could be identified in this trench.

### 3.2: Trench II (Figure 3)

In this trench, the earliest level exposed was the upper horizon of a natural subsoil (2003), equivalent to the upper subsoil in Trench I. The weathered basalt ?footings (2007) of a possible collapsed drystone wall, approximately 2m wide, and aligned southwest-northeast, were exposed above the subsoil. There was no evidence of a foundation trench, and only the lowest course of the wall had survived. The larger blocks within the ?wall were arranged along its northern edge, possibly to provide additional protection from the prevailing northwesterly winds. Patches of grey silt clay (2008) were exposed in the interstices between the wall-material, and

were also noted filling small depressions in the natural ground surface exposed in this trench.

Three possible post-holes (2004, 2005, 2006), formed of vertically-set basalt blocks, were provisionally identified in the south of the trench, but not excavated.

A dark brown silt-clay (2002) overlay the natural subsoil (2003), the wall, and possible post-holes. Above was a lens of buried turf (2001), beneath the present turf (2000).

3.3: **Trench III** (Figure 3)

The upper horizon of natural subsoil (3003) exposed in this trench was equivalent to the subsoil exposed in Trenches I and II. An irregular scatter of small, weathered basalt blocks (3004), occupying a zone approximately 1.5m wide, was exposed to the north of the trench, possibly representing the collapsed base of a drystone wall. This manmade arrangement could be distinguished from the naturally-fractured angular basalt blocks both within and above the subsoil, although neither the width, or alignment of the ?wall could be established.

The upper subsoil in the south of the trench contained pockets of charcoal flecking. This charcoal may be associated with a heavily-truncated post-hole (F300), which contained a fill of dark brown clay-silt (3005) mixed with charcoal. Half of this feature was excavated and the fill retained for wet-sieving in the laboratory (see Section 7.0 below).

The subsoil and the archaeological features were sealed by a dark brown silt-clay (3002), 0.1m deep, below the buried turf layer (3001) and the turf cover (3000).

3.4: **Trench IV** (not illustrated)

The earliest level exposed here was the upper horizon of the lower subsoil (4004), a yellow-orange, compact silt-clay, also recorded in Trench I

(1004). A dense, irregular, natural spread of angular basalt blocks above was set both within and above the upper natural subsoil (4003), equivalent to the subsoil exposed in Trenches I-III, but with a greater density of stones. An overlying dark brown silt-clay (4002) was sealed by a layer of buried turf (4001) below the present turf (4000). No archaeological features or deposits were identified in this trench.

3.5: **Trench V** (Figure 3)

The subsoil here was a buff-brown sand-silt (5003), mixed with shattered angular basalt blocks, exposed in the centre of the trench.

In the south of the trench, the subsoil was overlain by a somewhat more regular surface formed of apparently laid basalt blocks (5004). The northernmost extent of this surface was possibly defined by a kerb of angular stones, standing above the level of the laid surface, and aligned approximately west-east. To the north of the trench was exposed a triangular area forming part of a second possible laid stone surface (5005), with its edge aligned southwest-northeast. Both surfaces appeared to continue beyond the limits of the evaluation trench.

The natural subsoil and both possible laid stone surfaces were sealed by a buff-brown silt-clay (5002), 0.1m in depth, heavily disturbed by ?heather roots, overlain by a relict turf layer (5001) below the present turf (5000). A sample of context 5002 was collected for wet-sieving in the laboratory (see Section 7.0 below).

3.6: **Trench VI** (not illustrated)

The earliest level exposed here (6002) was equivalent to the natural stone tumble revealed in Trench IV to the west (4002). The layers above (6001, 6000) were identical to those also exposed in Trench IV (4001, 4000). No archaeological features or deposits could be identified in this trench.

### 3.7: Finds

The only artefact recovered during the evaluation was a waste flake of grey flint from context 6002 in Trench VI.

## 4.0: DISCUSSION

The lower natural subsoil (1004, 4004), above the bedrock, was located in Trenches I and IV. The upper subsoil, containing naturally fissured basalt blocks, was exposed over most of the remainder of the area evaluated. In Trenches IV and VI it was overlain by a naturally-formed dense tumble of stone. The subsoil recorded in Trench V differed from that found elsewhere; it was probably derived from the weathering and erosion of the exposed basalt strata in the steep, northeast-facing slope southwest of the trench.

Given the nature of the subsoil, the identification and definition of archaeological features within the narrow and widely-spaced evaluation trenches proved to be difficult. The small size of the areas investigated, and the limitations placed upon excavation, make a coherent interpretation of the results impossible. It is clear, however, that no archaeological remains were present in Trenches I, IV and VI.

Although the structures identified cannot be dated from artefactual evidence, it is possible to find parallels for the features encountered at other excavated hillforts in the Welsh Marches.

The collapsed drystone wall (F200), recorded in Trench II, was built over the contemporary ground surface - a layer of turf which survived patchily in the form of grey clay, also used as packing between the stone rubble. Its suspected continuation to the west may be represented by the ?wall in Trench III (F301). This wall may have formed part of a stock enclosure, following the natural contours of the hilltop, or alternatively it may have been part of a circular hut, paralleled by examples more fully excavated at Old Oswestry hillfort, Shropshire (Hughes forthcoming) and the Breiddin, Powys (O'Neil 1937). These structures may have been scattered randomly in

the hillfort interior, or laid-out in a regular, ordered arrangement.

The post-hole (F300), recorded in Trench III, and other possible (unexcavated) post-holes noted in Trench II cannot be related to any structural arrangement. It is possible that some of these may have formed part of a timber-framed structure of unknown form. A variety of buildings of timber-construction have been excavated elsewhere in the Marches, including 'four-posters' and structures founded on horizontally-laid timber beams at Midsummer Hill, Hereford and Worcester (Stanford 1981). At Moel Y Gaer, Clywd (Guilbert 1976) was excavated a group of ring-post and stake-wall round-houses. A hillfort can contain examples of both drystone and timber construction, as at the Breiddin, Powys (O'Neil 1937, Musson 1976) and Ffridd Faldwyn, Powys (O'Neil 1943).

Both the possible laid stone surfaces defined in Trench V apparently formed part of larger structural arrangements continuing beyond the area of the trench. Only the northern limit of the south surface (5004), and the southeastern limit of the north surface (5005) could be defined. These surfaces may perhaps be interpreted as internal hut floors by analogy with similar evidence from the Breiddin, Powys where more extensive area excavation defined rectilinear areas of stone flooring, despite the absence of evidence for external walling (Musson 1976, Figure 1).

However, it must be stressed that, due to the very limited scope of the evaluation, the archaeological interpretation of all the features encountered is very speculative, and, indeed, in a number of instances the question of whether a feature is manmade or natural in origin cannot be decisively resolved.

## 5.0: IMPLICATIONS AND PROPOSALS

### 5.1: Implications

Despite the fragmentary nature of the evidence recovered, the archaeological deposits exposed are of sufficient importance, or potential importance, to merit preservation in-situ. Although the limited nature of

the archaeological investigation has necessarily restricted our wider understanding of the evidence, it has been possible to identify areas where archaeological deposits are absent (Trenches I, IV and VI), in particular at the eastern end of the evaluation area. In the remaining areas the archaeologically sensitive deposits are located mostly within 0.15m of the modern turf cover.

If the development proceeds as envisaged, the new radar installation will require to be firmly founded on bedrock. This will involve disturbance to an area of 8.1 sq. m. and, additionally, new underground services will be required.

Given the nature of the subsoil, an archaeological watching-brief during the groundworks would not be worthwhile. The design solution proposed below involves the location of the development in an archaeologically sterile area, and the protection of the surrounding sensitive archaeological deposits.

5.2: **Proposals** (Figure 4)

**(1) It is recommended that the radar installation be located between, and partly over, Trenches I and VI, at a distance of between 139m and 147m from the Primary Radar. The location of the development in this area will obviate any disturbance to the archaeologically sensitive deposits identified by evaluation. The area affected by the groundworks should not exceed 8.1m by 8.1m.**

**(2) It will be necessary to protect the areas surrounding the site of the radar installation during, and, as appropriate, after the construction process, to eliminate or mitigate the effects of the movement of plant, vehicles and machinery.**

**(A) It is recommended that the entire area(s) of the construction zone and the access route from the road be protected with geotextile matting covered with a layer of crushed rock. This protection will preserve archaeologically-sensitive deposits lying within 0.15m of the**

**turf surface.**

**(B) It is recommended that the access route for plant and machinery follow the most direct route between the existing metalled road and the site of the new installation, to minimise the zone of potential disturbance.**

**(C) The route of the laid services to the new radar should follow the shortest route from existing services, and, if technically feasible, be set within a single trench. New services should be located in old service trenches whenever possible.**

**(C) Other sub-surface intrusions should be eliminated or minimised, for example by the use of metal fence posts.**

## 6.0: ACKNOWLEDGEMENTS

The project was sponsored by the Meteorological Office. The excavation was supervised by Alex Jones, assisted by Ed Newton, Sally Finter, Martin Lightfoot, Patrick Fisher, and Rob Atkins. Simon Buteux monitored the project and edited this report with Gwilym Hughes. The illustrations were drawn by Mark Breedon. I am grateful to Dr. A. Streeten of English Heritage and to Dr. K. James of the Meteorological Office for advice, and to the staff of the Civil Aviation Authority establishment at Titterstone Clee for their help and hospitality. Russell Heath processed and reported-on the environmental samples.

## 7.0: APPENDIX: ENVIRONMENTAL EVIDENCE (by R.W. Heath)

Two samples were hand-flotted through a 600 micron sieve. The flot and residue was microscopically analysed to identify the species of carbonised seeds and other material present.

**SAMPLE 1.**

| | | |
|---|---|---|
| Trench III | Feature: F300 | Context: 3005 (Only fill of half-excavated feature). |

Initial weight: 6 kg.
Mineral residue weight: 125g.
Flot weight: 28g.

A carbonised legume seed was recovered from this sample, but its exact species could not be defined because of surface abrasion. The remainder of the flot was composed of wood charcoal. This sample may include sufficient material for a C14 date.

**SAMPLE 2**

Trench V

Context: 5002 (Silt overlying stone surfaces below topsoil).

Initial weight: 2 kg.
Mineral residue weight: 353 g
Flot weight: 5g.

Five fragments of carbonised hazel nut shell were recovered. The remaining flot comprised carbonised twig and root material and wood charcoal.

## 8.0: REFERENCES


Avery, M. 1976 'Hillforts of the British Isles: A Students Introduction' in Harding, D.W. (Ed.) Hillforts, 1-55.

Cunliffe, B. 1978. Iron Age Communities in Britain.

Gelling, P.S. 1967. 'Excavations at Caynham Camp, near Ludlow: First Interim Report'. Trans. Shrops. Arch. Soc . 56.

Guilbert, G.C. 1976. 'Moel Y Gaer (Rhosemor) 1972-1973: An Area Excavation in the Interior' in Harding, D.W. (Ed) Hillforts, 303-318.

Hains, B.A. and Horton, A. 1969. British Regional Geology. Central England. HMSO.

Harding, D.W.(Ed) 1976 Hillforts:. Later Prehistoric Earthworks in Britain and Ireland.

Hughes, E.G. forthcoming Old Oswestry, Shropshire. Site Narrative and

Archive Assessment. BUFAU.

Kenyon, K.M. 1942 'Excavations on the Wrekin, Shropshire 1939' Antiquaries Journal, 89, 99-109.

Lines, H.H. 1891 'Titterstone Camp and Others'. Trans.Shrops.Arch and Nat Hist Soc, 2nd Series, 3, 1-35.

Musson, C.R. 1976 'Excavations at the Beiddin 1969-1973' in Harding, D.W. (Ed.) Hillforts, 293-300.

O'Neil, B.H. St. J. 1934 'Excavations at Titterstone Clee Hill Camp, Shropshire 1932'. Archaeologia Cambrensis,89, 83-111.

O'Neil, B.H. St. J. 1934a 'Excavations at Titterstone Clee Hill Camp' Antiquaries Journal, 14, 13-32.

O'Neil, B.H. St. J. 1937 'Excavations at the Breiddin Hill Camp, Montgomeryshire 1933-1935' Archaeologia Cambrensis, 92, 86-128.

O'Neil, B.H. St. J. 1943. 'Excavations at Fridd Faldwyn Camp, Montgomery, 1937-1939' Archaeologia Cambrensis,97, 1-57.

Stanford, S.C. 1980 The Archaeology of the Welsh Marches.

Stanford, S.C. 1981 Midsummer Hill, An Iron Age Hillfort on the Malverns.

Savory, H.N. 1976 'Welsh Hillforts: A Reappraisal of Recent Research' in Harding, D.W. (Ed.) Hillforts, 237-292.

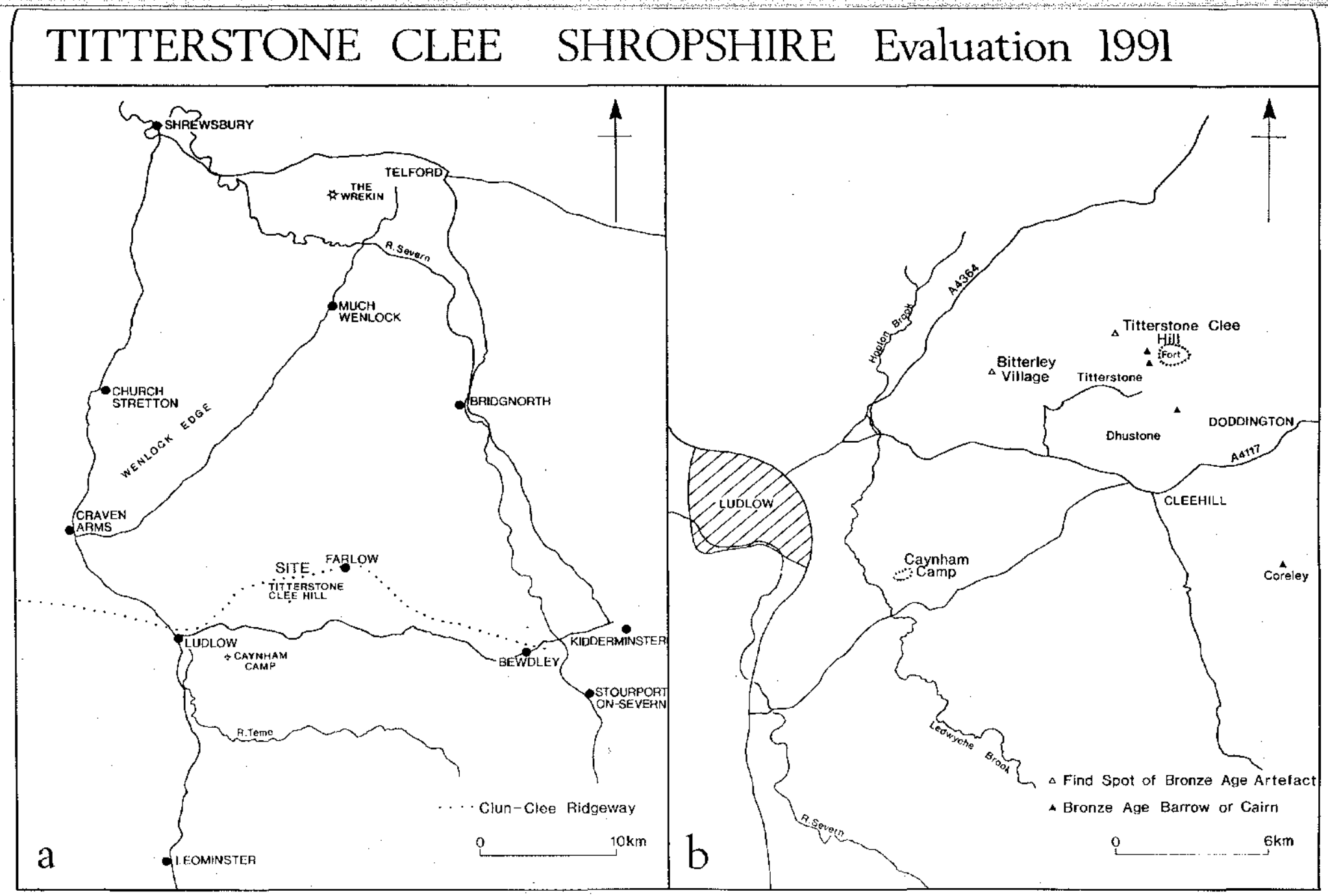
TITTERSTONE CLEE SHROPSHIRE Evaluation 1991
SHREWSBURY
TELFORD
THE WREKIN
R. Severn
MUCH WENLOCK
CHURCH STRETTON
WENLOCK EDGE
BRIDGNORTH
CRAVEN ARMS
SITE
FARLOW
TITTERSTONE CLEE HILL
LUDLOW
CAYNHAM CAMP
KIDDERMINSTER
BEWDLEY
STOURPORT ON-SEVERN
R. Teme
LEOMINSTER
Clun-Clee Ridgeway
0
10km
a
A4364
Hopton Brook
Titterstone Clee Hill
Fort
Bitterley Village
Titterstone
DODDINGTON
Dhustone
A4117
CLEEHILL
LUDLOW
Caynham Camp
Coreley
Ledwyche Brook
R. Severn
Find Spot of Bronze Age Artefact
Bronze Age Barrow or Cairn
0
6km
b

Figure 1

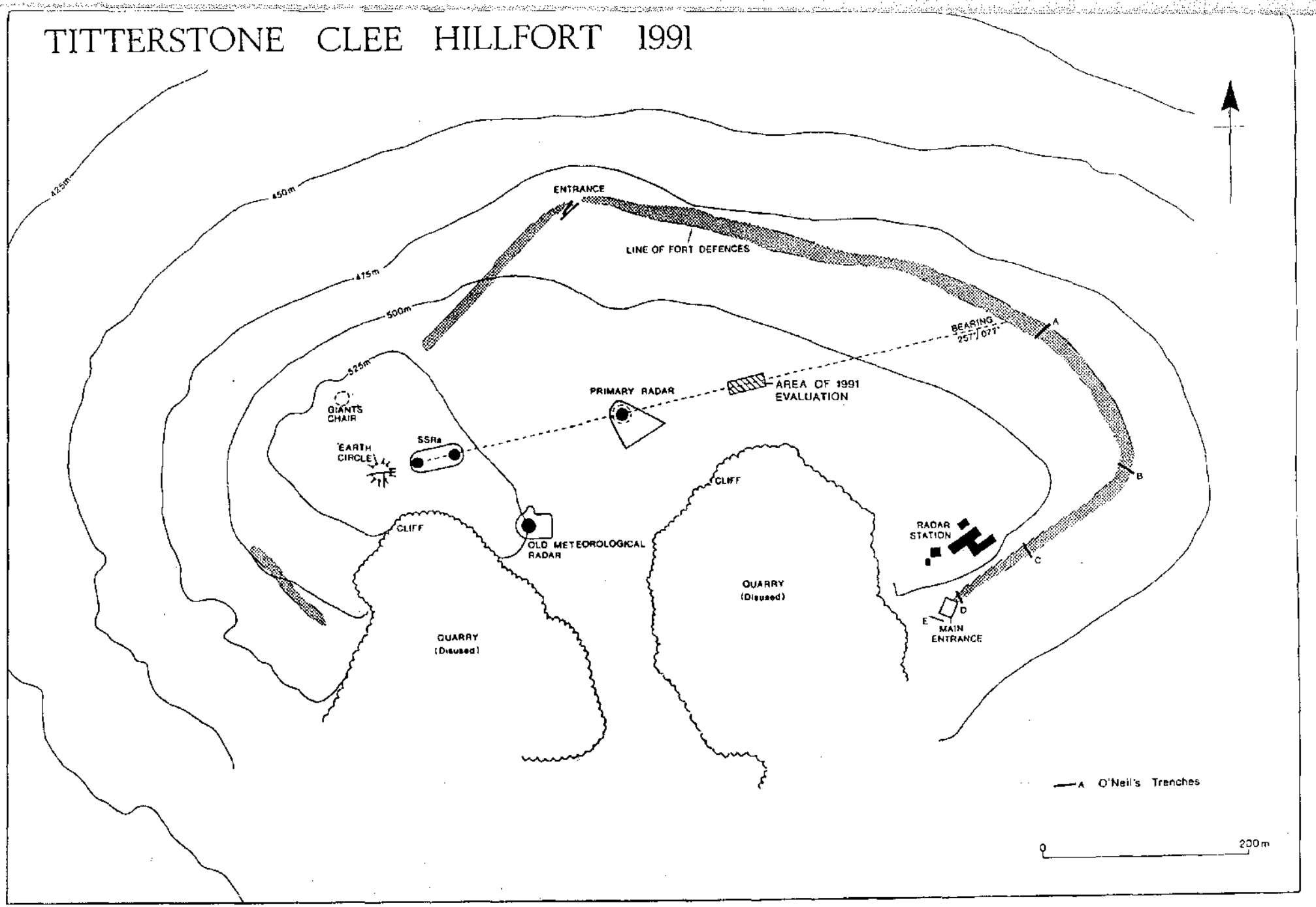
TITTERSTONE CLEE HILLFORT 1991
425m
450m
475m
500m
525m
ENTRANCE
LINE OF FORT DEFENCES
BEARING 257°/077°
A
B
C
D
E
PRIMARY RADAR
AREA OF 1991 EVALUATION
GIANTS CHAIR
EARTH CIRCLE
SSRs
CLIFF
OLD METEOROLOGICAL RADAR
CLIFF
RADAR STATION
QUARRY (Disused)
QUARRY (Disused)
MAIN ENTRANCE
A O'Neil's Trenches
0
200m

Figure 2

# TITTERSTONE CLEE 1991
## Plans

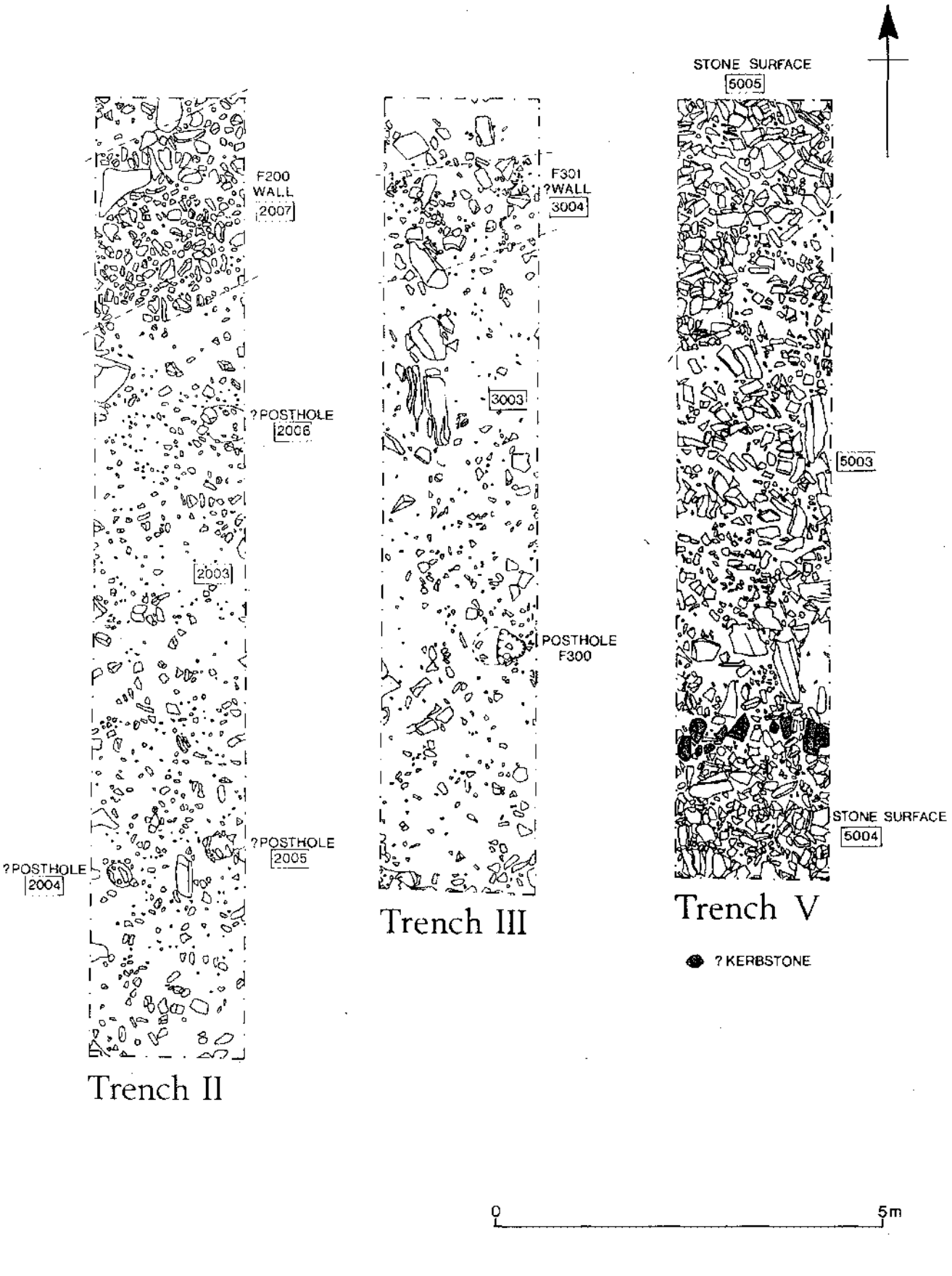


Figure 3

# TITTERSTONE CLEE 1991

## Simplified plan of main features and proposed development area

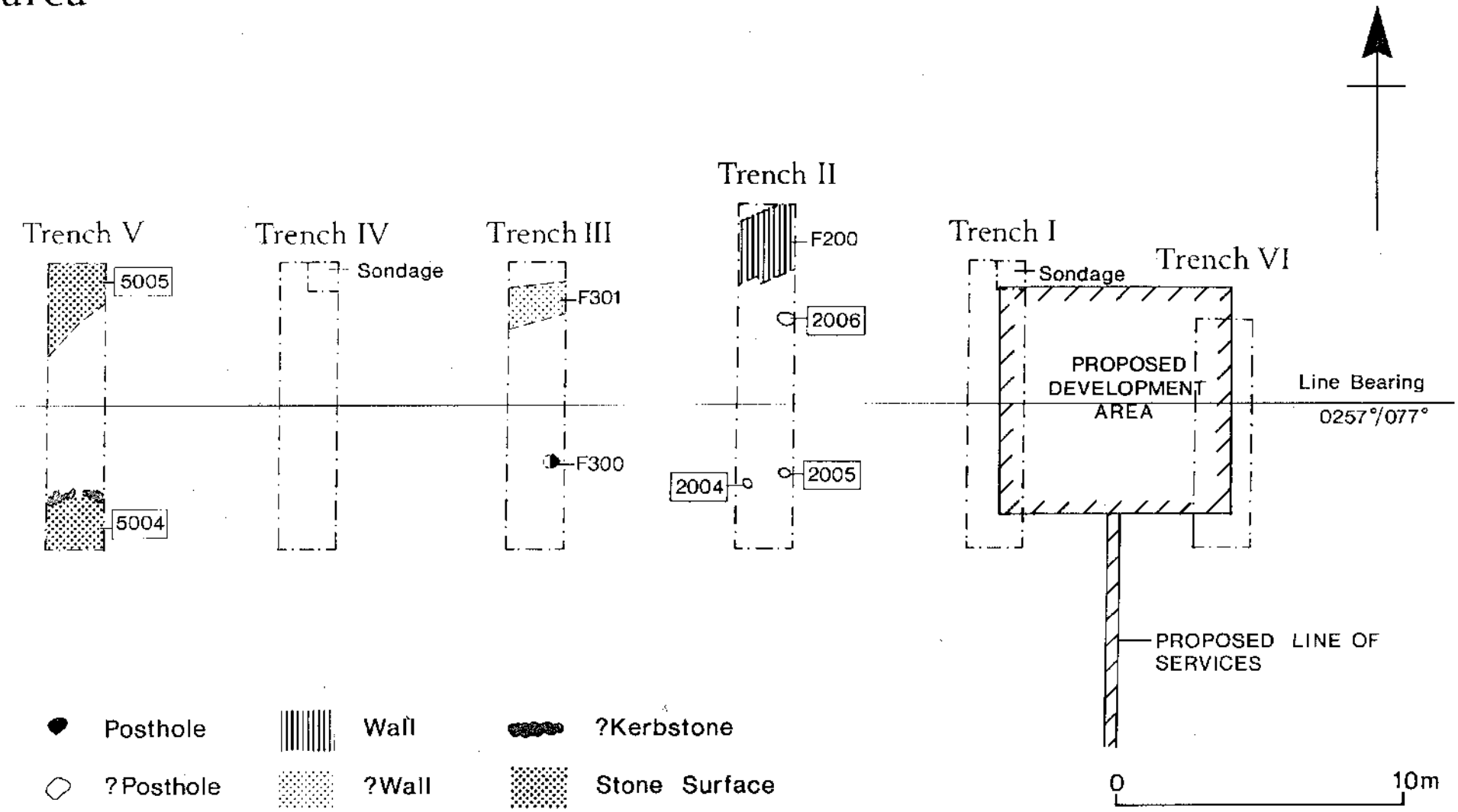


Figure 4