

ASHBURY (OX)

TOWER HILL, ASHBURY, OXON
SURVEY PROGRAMME RESULTS

by Greg Campbell

January 1996

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SUMMARY

The preliminary results of the final fieldwork phase of the Tower Hill project are presented. The survey of aerial photographs produced a more detailed and coherent picture of the 'Celtic' field system, a plan of the late Bronze-early Iron Age settlement (which is considerably larger in extent than expected), and a 'banjo' enclosure with droveways and possibly contemporary paddocks (adding an unexpected element to what is a well-studied landscape). The contour survey appears to have recovered and preserved from plough erosion some of the field system's lynchets and settlement terraces, and to have located relatively level areas of the slope on which the settlement activity (especially building) was concentrated. Mathematical manipulation of the survey data, if possible, may identify further lynchets and settlement terraces.

BACKGROUND

In Spring 1993 of a metalworker's hoard of the Llyn Fawr period of the late Bronze Age was discovered by chance on the N-facing slope of Tower Hill, Ashbury Parish, Oxon (OS grid ref SU 2846 8397) on the Upper Chalk of the Lambourn Downs. Following this discovery, English Heritage funded a trial excavation and surface collection survey by the Oxford Archaeological Unit in parallel with a geophysical survey by Ancient Monuments Laboratory staff. The geophysical survey found no clear anomalies, and the surface collection survey recovered worked flint (of Neolithic/Bronze Age character) and pottery (overwhelmingly of Roman date). The trial excavation revealed an arc of post-holes and an area of blue staining coincident with the location of the elements of the hoard found bedded into the chalk rock.

These results, indicating the possibility of a settlement contemporary with the hoard, led to English Heritage funding further fieldwork. A larger trench around the hoard confirmed the post-hole arc seen in the trial excavation was part of a circular post-built structure. Stripping and cleaning of 3% of the top of the ridge (as a series of trenches aligned on the OS grid) revealed a settlement of at least two phases, made up of further circular structures with small pits nearby and of small square four-post buildings. The buildings seemed to be grouped, and to sit upon shallow terraces.

This part of the Lambourn Downs has been known to be covered by 'Celtic' fields (Rhodes 1950). The trenches revealed these fields were more extensive than previously recognised (Rhodes 1950). Only the negative lynchets survived, and the loss of these features due to ploughing was most serious along the ridge-line.

In addition, a late Neolithic pit rich in Grooved Ware pottery, animal bone and worked flint was fully excavated, and possible flint-extraction pits were found at the top of the ridge.

The Tower Hill site now has a County Sites And Monuments reference Number (PRN 15,610).

AERIAL PHOTOGRAPH SURVEY

Aims and Method

Information on the archaeology of the Tower Hill area is especially likely to be recorded by aerial photography, since the soil derived from chalk geology such as that at Tower Hill is characteristically shallow. Survey of air photograph collections, and plotting of the crop- and soil-marks seen, was proposed

- to refine the full extent and complexity of the 'Celtic' field system
- to identify, where possible, further elements of the late Bronze-Early Iron Age settlement
- to identify where possible further monuments. In particular, it seemed possible that the Grooved Ware pit and possible flint-extraction pit complex found during the trenching phase (Campbell 1994, 7) were the first elements recognised in a Neolithic complex.

The means used for the aerial photograph survey were outlined as Method 8 in the Post-excavation assessment (Campbell 1994, 17). The vertical air photograph coverage held by the Oxfordshire County Sites And Monuments Record was surveyed. This was followed by a survey of the oblique and vertical coverage held at the National Monument Record Office (NMR) air photographic library at the Royal Commission of Historic and Ancient Monuments for England, Swindon. The relative clarity and detail of the photographs were compared. A selection of the best were digitised and fitted to clear fixed points on the 1:2500 Ordnance Survey map using AERIAL 4.2 software developed by Sheffield University.

Results

The digitised images from the aerial photographs have been fitted to the OS map and then plotted directly to produce the cropmark maps (Figs 3 & 4), without any alterations. A by-product of plotting the digitised images directly is the cropmarks (which are smooth continuous curves of various thicknesses) appear as rather jagged lines, all of one thickness. The digitising process can also result in the mapped image of what is clearly an elliptical or circular cropmark being 'flattened' or stretched.

The 'Celtic' field system

The clearest photograph for Tower Hill's 'Celtic' field system is that taken in April 1969 and held by the County Sites and Monuments Record (Fairey Survey 1:10,000 vertical run 6905 frame 12.937) This does show a more detailed and consistent picture than that of the initial plots by Rhodes (1950), and that in the Tower Hill site the system is essentially of one period.

The late Bronze-Early Iron Age Settlement

A broad line of penannular cropmarks were observed along the top of the chalk ridge which runs S from the Tower Hill site (NMR film 106G/UK/1416 frame 4304, of April 1946), but were not observed on any other photographs. If these cropmarks can be believed, the settlement would have occupied the entire top of the ridge (an area 900 m long and 130 m wide) and to contain approximately 15 penannular structures. It is not certain on the present evidence that this full extent need have been occupied at one time.

No indication of other features associated with the settlement (such as an enclosing ditch) were noted on any other photographs.

Additional Discoveries

No indications of Neolithic monuments such as ploughed-out barrows were noted on any of the aerial photographs.

A 'banjo enclosure' at grid reference SU 2873 8460 (Fig 4) is clearly visible on NMR film 922 frame 424 of April 1976. This type of monument, consisting of a roughly circular ditched enclosure with a long narrow entrance formed by two parallel ditches, was widespread across the south of England during the middle Iron Age. An example of a comparable site is Micheldever Wood (Fasham 1988). Their precise function is debated, but they are thought to be individual farmsteads involved primarily in livestock-rearing.

The Odstone banjo enclosure appears to sit on the saddle-point between the top of Odstone Down and a broad E-W dry valley to the N. Its entrance is orientated SE, towards Odstone Down, where it meets at right angles another double-ditched trackway aligned NE-SW, thus forming a curious T-shaped plan. The NE arm of the NE-SW trackway is quite clearly closed off by a short ditch, indicating some controlled access to a field system contemporary with the use of the banjo enclosure.

The aerial photograph also clearly shows a NE-SW hollow-way or old stream course bounded by ditches to the SW of the enclosure. A rectilinear system of ditches orientated on the same axes as the two trackways and respecting the enclosure form a net of small rectangular fields. It is tempting to suggest that the probable middle Iron Age trackways and enclosure are surrounded by a contemporary system of paddocks, but it is also possible that the earthworks of the enclosure and trackways survived to form the skeleton for a later field system. For example, the banjo enclosure lies only 330 m N of the Odstone Down Romano-British farmstead (County SMR PRN 7909), one of the central points of the 'Celtic' field system.

Local residents informed OAU staff during the latest excavation that Odstone Down had been a bombing range during the 1939-45 War. Air photographs record the airfield in the valley bottom and several associated features, including what must be the bomb target (a cross whose equal arms meet at the centre of two concentric circles, the outer the same diameter as the cross arms) as there was a large bright white arrow (at SU 2858 8350, probably a chalk-cut figure) W of and aimed at it (NMR 106G/UK/1416 frame 4304).

CONTOUR SURVEY

Aims and Method

Negative lynchets encountered in the latest excavation were observed to form the edges of some terraces, and the post-built structures seen in the latest excavation and assigned to the late Bronze-early Iron Age settlement were observed to sit on other terraces. Further terraces not clearly related to the lynchets (and therefore possibly the locations of settlement structures) also seemed to be present. The Tower Hill site is now an arable field, and ploughing is cutting through the shallow topsoil into the chalk surface, gradually destroying the archaeological features. The recent ban on stubble-burning is making deeper ploughing necessary, accelerating the destruction of the archaeology.

A detailed contour survey was proposed to identify the terraces; to record the surviving traces of the terraces before their destruction by ploughing; and to help distinguish those terraces which coincide with lynchets seen on aerial photographs (and which therefore are 'Celtic' fields) from those, if any, which do not (and which therefore are likely to have formed activity areas within the settlement)

The means used in the contour survey were outlined as Method 9 in the post-excavation assessment (Campbell 1994, 17). In December 1995 spot heights (in m OD) were collected at 3 m intervals by theodolite across a 100 m square area aligned N-S with its SW corner at SU 2840 8385 (Fig 2). Adjacent strips to the N and to the S of this square, each also 100 m E-W, had spot heights collected by the same method, but at 6 m intervals. These adjacent strips were surveyed for two purposes: to ensure some coverage outside the area which had been investigated by the 3% trench excavation sample within the time available for the surveying; and to provide some comparative data to determine whether coverage at 3 m intervals or at a broader spacing is needed to identify the terraces.

The spot heights were converted into 10 cm contours electronically (Fig 5). Some limited manipulation of this basic contour survey was performed by Dr Chris Deeth of AIC, Shepshed. The contour differences were scaled by a factor of 10, a mesh of lines was plotted across the scaled contours to form a scaled image of the hillside, and a low-angle view looking at the scaled image of the hillside from the NNE was plotted (Fig. 6). The numbers on this figure mark the positions of trenches in the latest excavation phase (Fig. 2).

Results

The integration of the contour survey results with the air photograph evidence, and any detailed mathematical manipulation of the survey data to confirm settlement terraces, is to form part of the final post-excavation analysis (Task 20 in the task list in the post-excavation assessment, Campbell 1994, 24). The results discussed below are therefore preliminary.

The trenches of the last excavation phase are not recognisable in either the basic contour survey (Fig. 5) or the scaled view from the NNE (Fig. 6). The truncated remains of the spoil heap W of Trench 2 (a slight N-S mound at SU 2845 8397) is the only excavation feature which can be distinguished, on both figures.

The 'Celtic' field system

The basic contour plot (Fig. 5) does seem to show some of the negative lynchets of the field system. Among these are the lynchet recognised

- in Trenches 2 and 12 (120=1205), aligned just W of due S from SU 2848 8398
- in Trench 17 (1707), aligned SSE from SU 2840 8389
- in Trench 21 (2102), aligned SSE in the extreme SW corner of the figure

The clearest mark (aligned SSE from SU 2840 8396) was not recognised in the latest excavation phase. It is possible that it passed between trenches, but there does not seem to be any cropmark in this position; the feature may be very recent.

Lynchets aligned roughly parallel with the contours are not so readily recognisable, probably as a result of the survey results being plotted as a contour plan. The data manipulation suggested to enhance the settlement terraces (see below), if possible, may reveal these lynchets as well.

The Late Bronze-Early Iron Age settlement

The small terraces around the settlement's buildings, and other small terraces which do not form part of the field system, are not clear on the contour plot (Fig. 5), but on the scaled low-angle image (Fig. 6) terraces for the buildings found in Trenches 2, 10 and 22 and other similar broad and shallow features can be made out. It is difficult to separate such features from the underlying shape of the ridge; it is hoped that this underlying shape can be approximated mathematically and then 'subtracted' from the survey data, thereby enhancing the more subtle features.

What is clear on both figures that there are three areas which do not slope as steeply as the rest of the ridge. The highest of these three 'flatter spots', about 20 m across and just NE of the top of the ridge at SU 2842 8380, was not investigated. The other two have been sampled by excavation, and each seems to have settlement structures. Slightly lower down the ridge is a 'flat spot' about 12 m E-W and 20 m N-S at SU 2843 8393, where Trench 13 revealed three four-post structures, two certain (Buildings E, F) and another possible. The lowest of these 'flat spots' is about 20 M E-W and 40 m N-S centred at SU 2845 8392. Trench 9 on its NW edge revealed the pits filled with burnt quern-stones and the circular structure Building C, and Trench 10 on its E edge revealed another circular structure (Building B). Based on this admittedly small sample, it seems that settlement activity (especially building and use of structures) was concentrated on these comparatively level pieces of ground.

Initial impressions are that there is some loss of resolution of the terraces in the parts which were surveyed at the coarser spacing, which has little effect on locating lynchets but which may have obscured settlement terraces.

BIBLIOGRAPHY

Campbell, G E 1994: **Tower Hill, Ashbury, Oxon.: Post-Excavation Assessment and Research Design**, Oxford Archaeological Unit

Fasham, P 1988: *A banjo enclosure at Micheldever Wood, Hampshire*. Hampshire Field Club Monograph **5**

Rhodes, P P 1950: 'The Celtic field systems on the Berkshire Downs', *Oxoniensia* **15**, 1-28

Rhodes, P P 1953: 'Excavations at Odstone Down', *Transactions of the Newbury and District Field Club* **1**, 49-74

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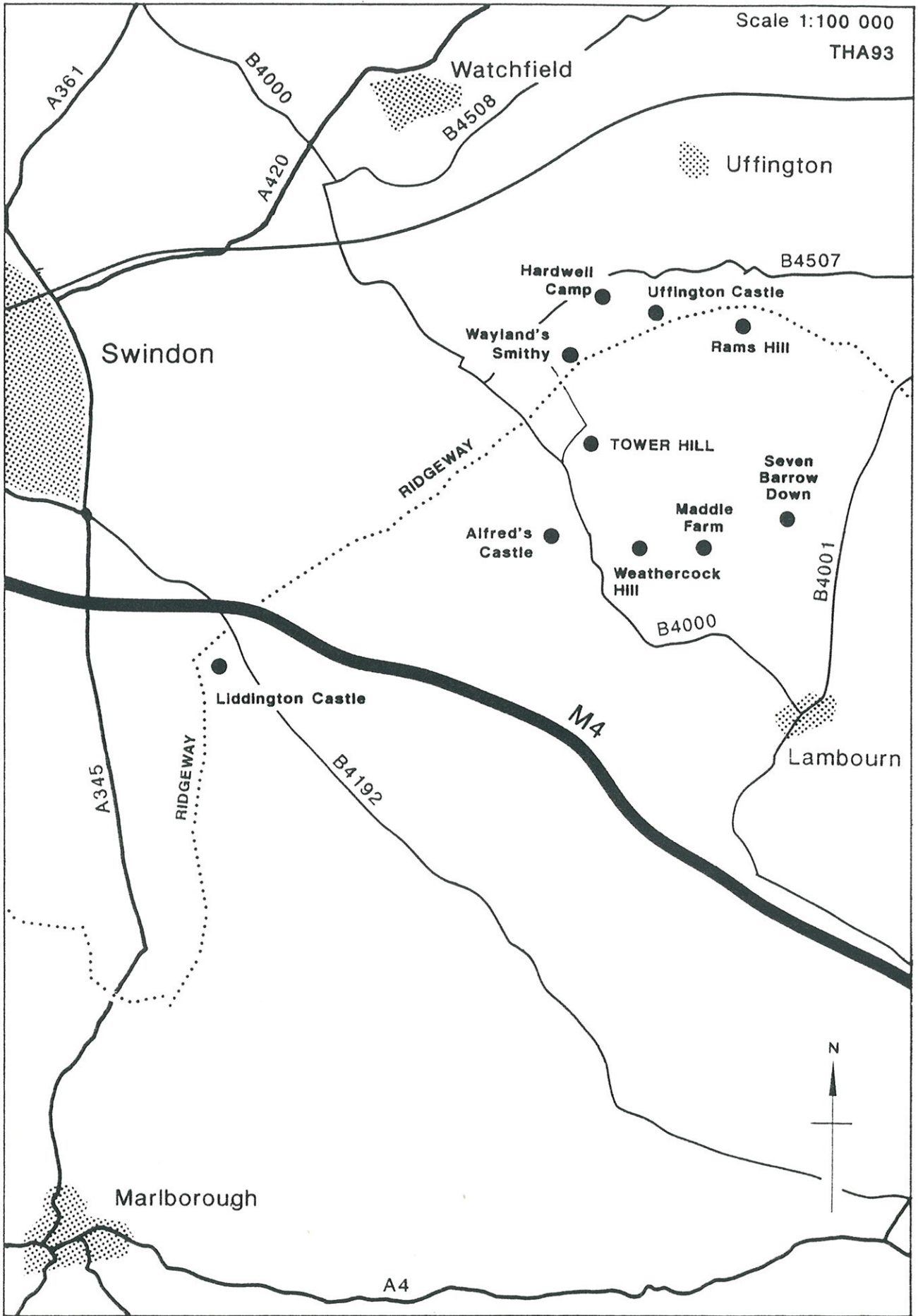


figure 1: Tower Hill and other nearby sites



- H Axe hoard
- Late Bronze age structure
- * Late Bronze age feature
- ▨ Celtic fields as per Rhodes 1950
- Negative lynchet observed
- ⋯ Limit of un-worked flint spread
- 7 Trench and Tr.No
- - - contour survey (Fig 5)

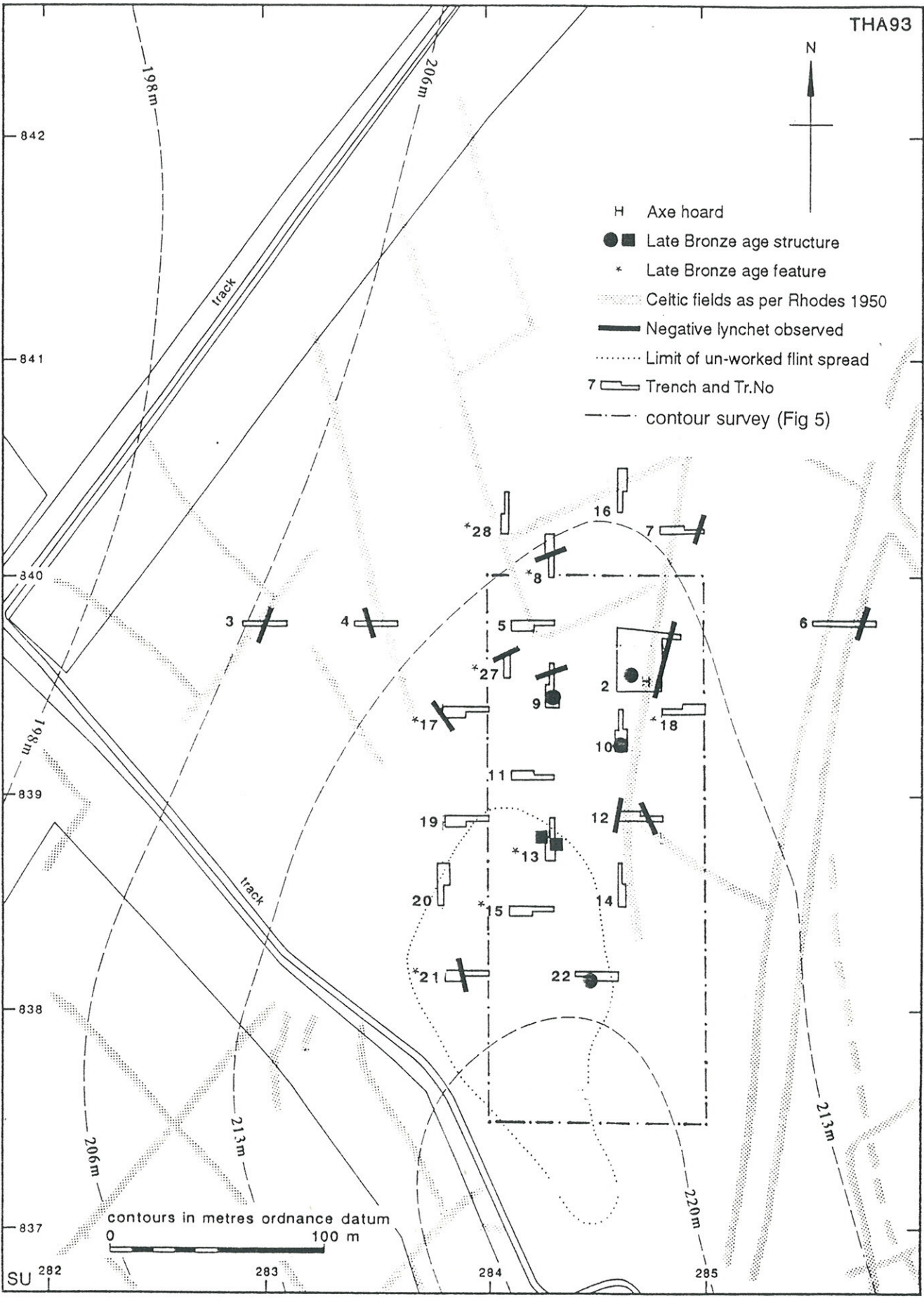


figure 2: Tower Hill trench location

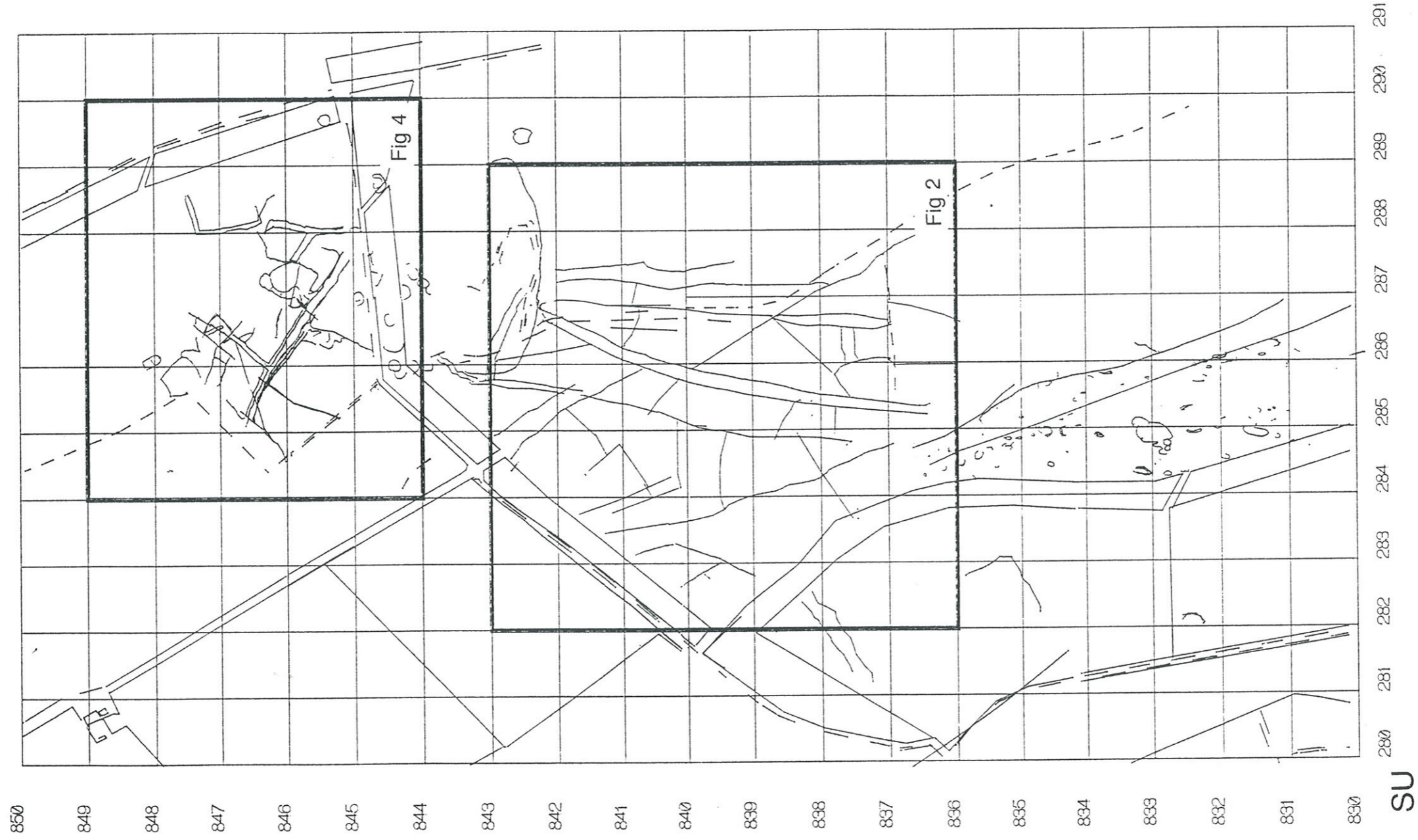


Fig 3 Tower Hill aerial photograph Interpretation plan

(Included extent of fig 2, fig 4)

Scale 1:7500

SU

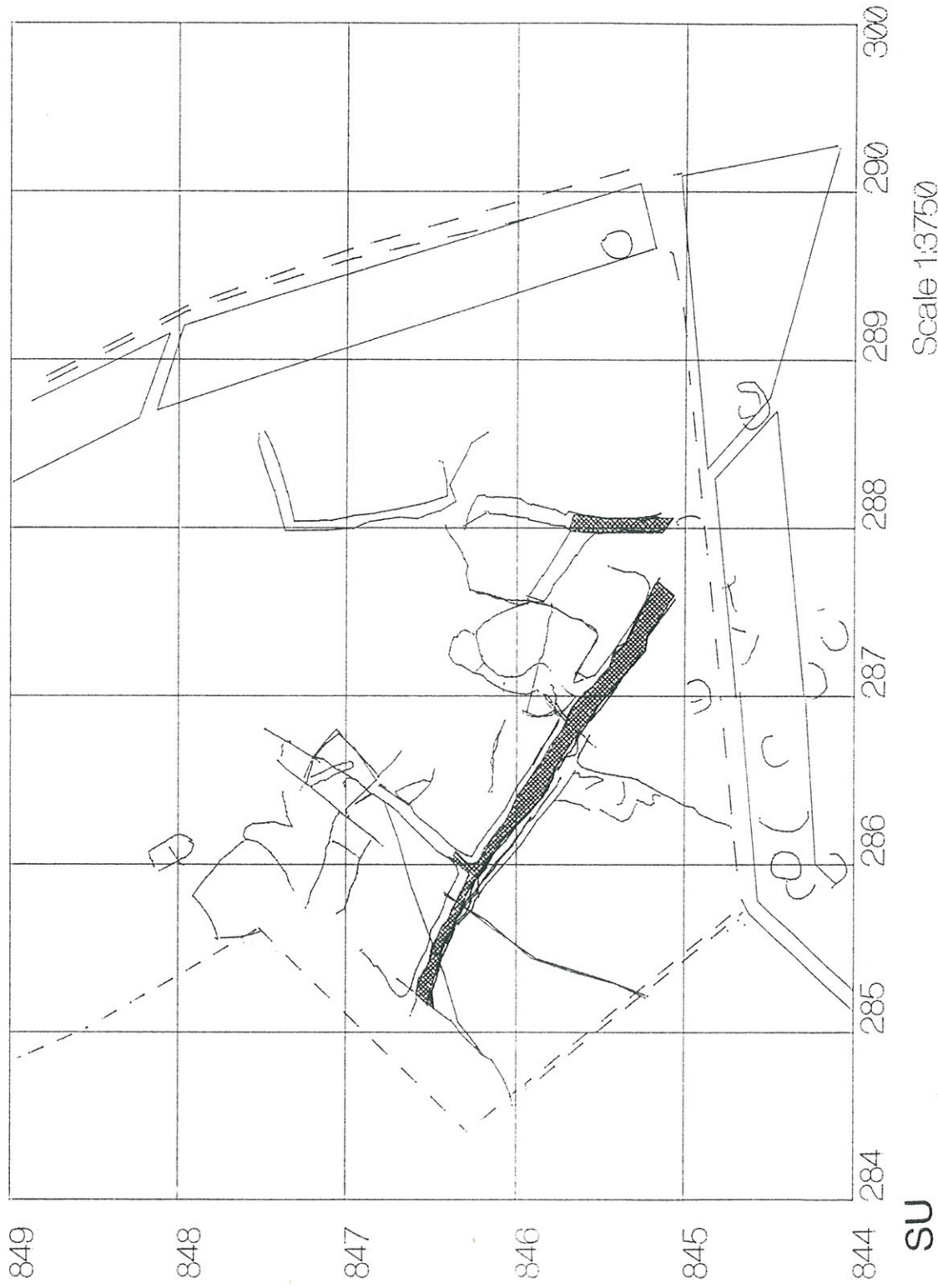


Fig 4: Odstone Down 'banjo' enclosure and associated cropmarks

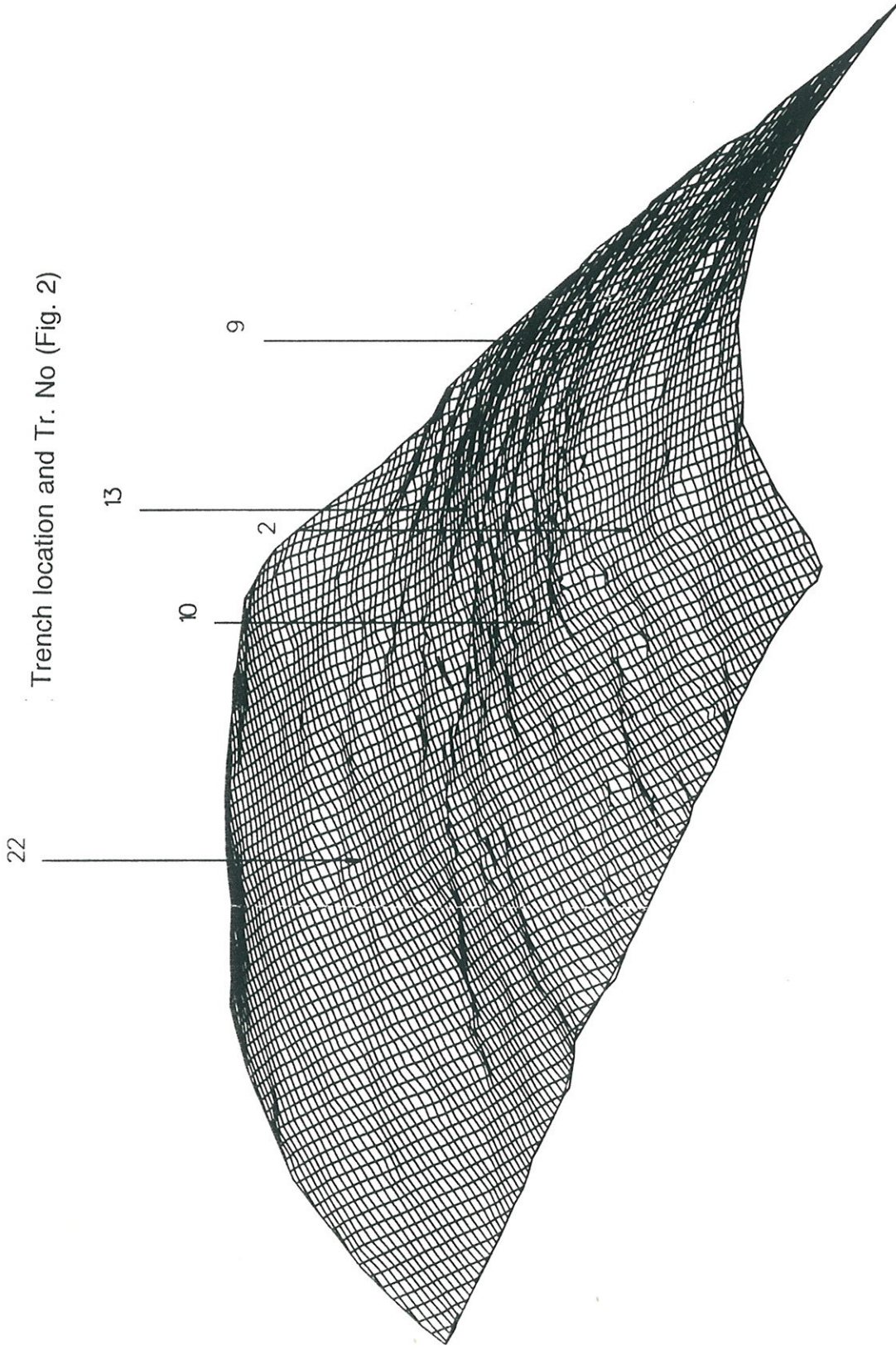


Fig 6: Low-angle view from NNE of scaled image of Tower Hill

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