Vale of York Neolithic Landscape Project

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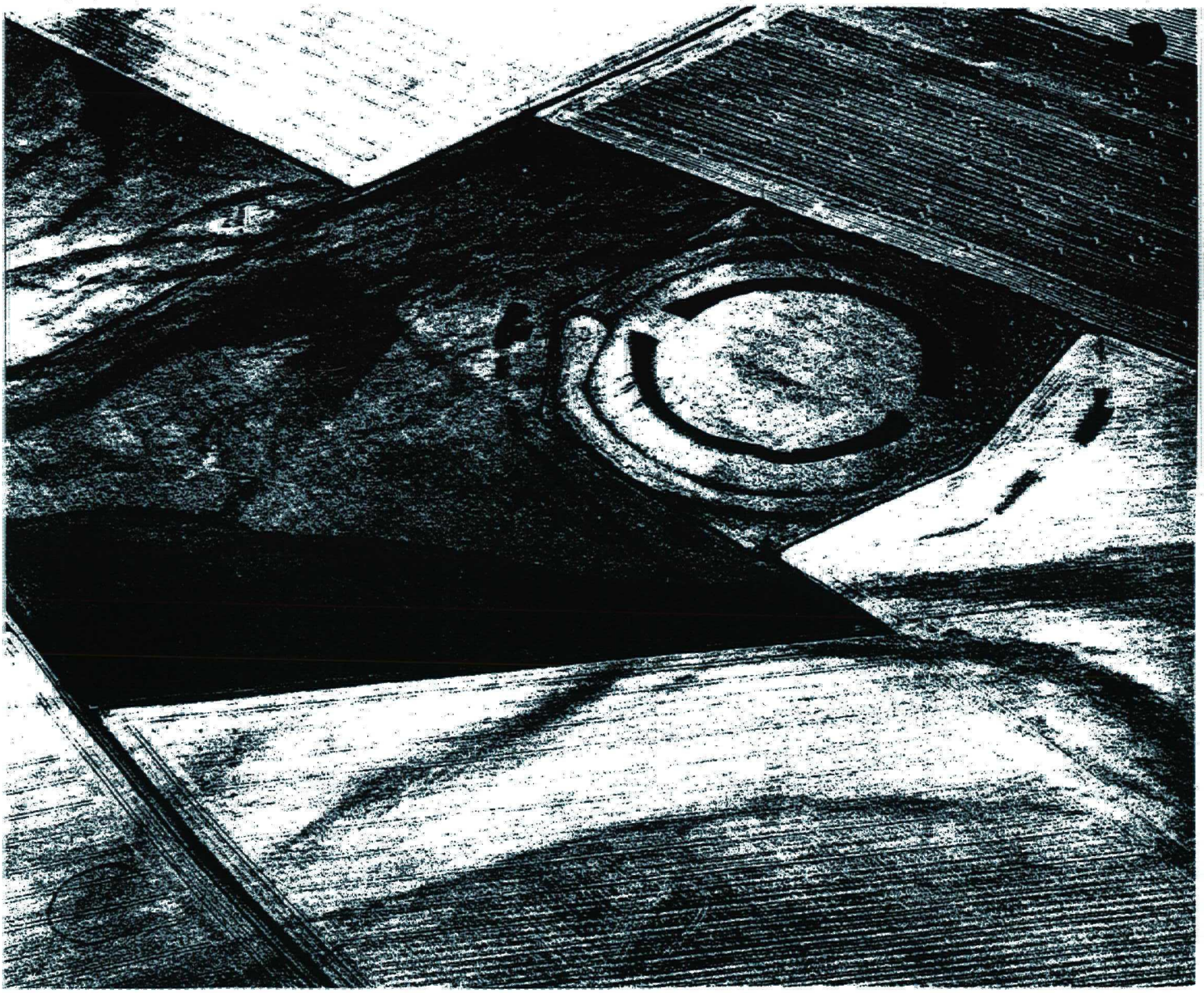
Interim Report 1997



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1. BACKGROUND: THE THORNBOROUGH MONUMENT COMPLEX

At the western edge of the low-lying vale which lies between the Pennines and the outlying hills of the North York Moors is the remarkable Neolithic monument complex of Thornborough. Sited on a gravel plateau which flanks the River Ure are three equally spaced henge monuments which all share a north-west/south-east orientation (Thomas 1955). Such a concentration is clearly unusual and their size and layout also sets them apart from most later Neolithic henge monuments. Each site has a diameter of about 240m and is defined by a double entrance through a pair of ditches and a massive intervening bank (Harding & Lee 1987, 314-17). They are the largest such sites outside the Wessex chalkland and the complexity of their layout is matched only by three almost identical henge monuments a few kilometres downstream (Harding 1997, fig.4).

There are two fundamental problems with our understanding of the Thornborough complex, and in 1994 a research project was established to address these concerns. The first problem is the chronology of the three henges and other nearby monuments. There is no artefactual evidence or radiocarbon dates for these sites, and a targeted programme of excavation was therefore initiated to establish a sequence for the complex. It was seen as particularly important to explore any sites which may have existed prior to the construction of the henges, and address whether the latter were the product of a single phase of building or of intermittent development. Accordingly, there has been excavation at a small ovate enclosure, a double pit alignment and the southern henge monument. The second major limitation with our appreciation of Thornborough concerns the contemporary settlement in and around the complex. Research undertaken in southern England, and in particular across the Wessex chalkland, suggests that Neolithic settlement was often highly structured in the vicinity of monument concentrations (Barrett et al 1991; Richards 1990). As a consequence, a programme of intensive surface collection was began across the

Thornborough landscape. About 170ha has presently been fieldwalked across a 4km by 3km study area.

2. SURFACE COLLECTION AT THORNBOROUGH

2.1 INTRODUCTION

The area selected for fieldwalking encloses a landscape approximately 4km from east to west and 3km from north to south (**Figure 1**). At the centre are the three henge monuments. These sites are built upon the long axis of a plateau, although both the northern and southern monuments are located immediately beyond the 45m contour, which defines this flat area. Much of this plateau has been destroyed by sand and gravel working. It is surrounded to the north by a marginally lower-lying area while to the south the landscape slopes gently to form the terraces of the River Ure. Along the eastern edge of the study area the landscape has a more undulating appearance, with deposits of till defining a number of low hummocks which are between 45m and 53m in height. On the opposite side of the study area, to the west of the quarry workings, lies a steeply sloping limestone ridge with a partial capping of till. This rises from 45m to 75m and forms the highest part of the study area. It enjoys extensive views over the monument complex.

These topographic variations divide the landscape into clearly differentiated parts, and in the absence of marked soil differences these form the basis for the surface collection strategy. It is possible to classify the blocks of modern arable fields into differing topographic zones. The long-term programme of fieldwalking aims to extensively sample each of these identifiable zones. The first three seasons of fieldwalking between 1994-96 was undertaken across thirty ploughed fields, most of which were from the low-lying area which surrounds the central plateau and the more undulating landscape to the east of the complex (**Figure 1**). Each field was divided into 15m transects which were then differentiated by 30m stints. The line of each transect was then walked by an individual, and the finds from each 15m by 30m catchment were separately bagged. This enabled the detailed locational recording of the collected assemblage, and the same methodology was employed during the 1997 season. A total of eight ploughed

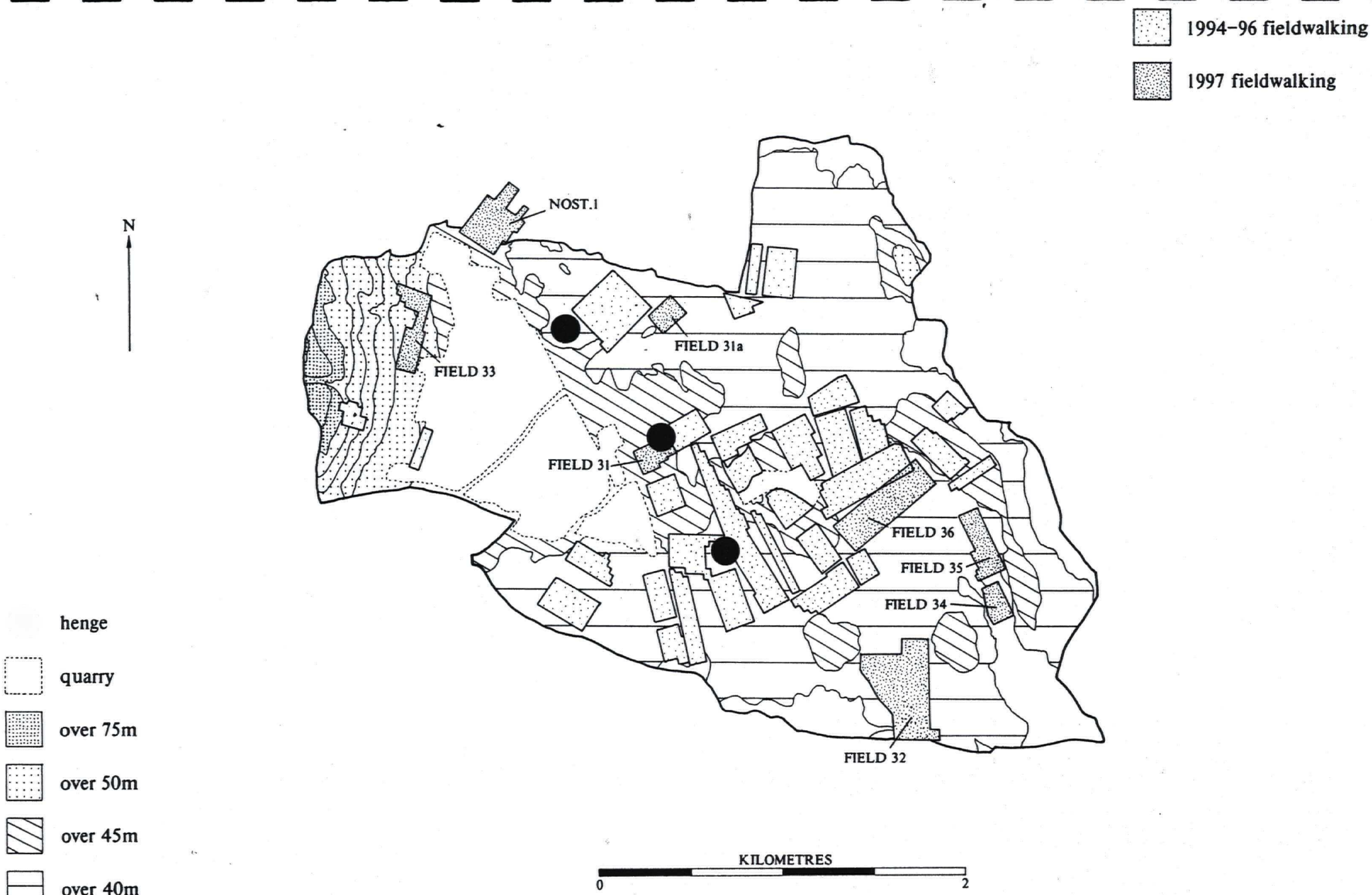

Figure 1: Extent of fieldwalking in the study area.

areas were fieldwalked during this fourth season (*Fields 31, 31a, 32, 33, 34, 35, 36,* and *NOST 1*). These were located to the south-east and north-west of the study area, at some distance from the monument complex, although *Field 31* was directly alongside the central henge monument. The total sampled by surface collection was 42ha, which compares with 39.8ha for 1994, 68.5ha for 1995, and 19.6ha for 1996.

2.2 RESULTS

The establishment of this impressive monument complex during the later Neolithic was to strikingly affect wider patterns of occupation and activity across the surrounding landscape. The programme of fieldwalking has identified extremely low and evenly spread numbers of worked later Mesolithic and earlier Neolithic flint from across the study area (Harding 1994; 1995; 1996a). It is apparent, in other words, that there were no major settlement concentrations during this period. A change seems to have occurred, however, with the onset of the later Neolithic. At this time there appears to have been a decline in the amount of worked flint and chert deposited around the immediate vicinity of the henge monuments. This is matched by the clustering of later Neolithic and early Bronze Age material in areas more distant from the complex. The observation is of importance since it is exactly this period in which the available evidence may place the construction of the first henge enclosures. The transformation in the distribution of lithics may therefore coincide with this phase of construction.

The past results of fieldwalking indicate that the vast majority of later Neolithic and early Bronze Age material is located over 600m from the henge monuments and the surrounding plateau across which they were constructed. This material is densely clustered to the east and north of the study area (**Figure 2**). The most notable example of such a concentration is located some 900m to the east of the central henge, along the slopes of a low ridge. It contains a high proportion of knapping debris but only small numbers of retouched pieces, and more specifically, identifiable tool types. There is also, somewhat surprisingly, a complete absence of cores. This suggests that the concentration may be the product of repeated short-term occupancy rather than permanent settlement, a conclusion which is reiterated by the light levels of use-wear on the worked flint. This is certainly of interest when considered in association with my earlier comments about the monuments being the result of episodic construction. It is

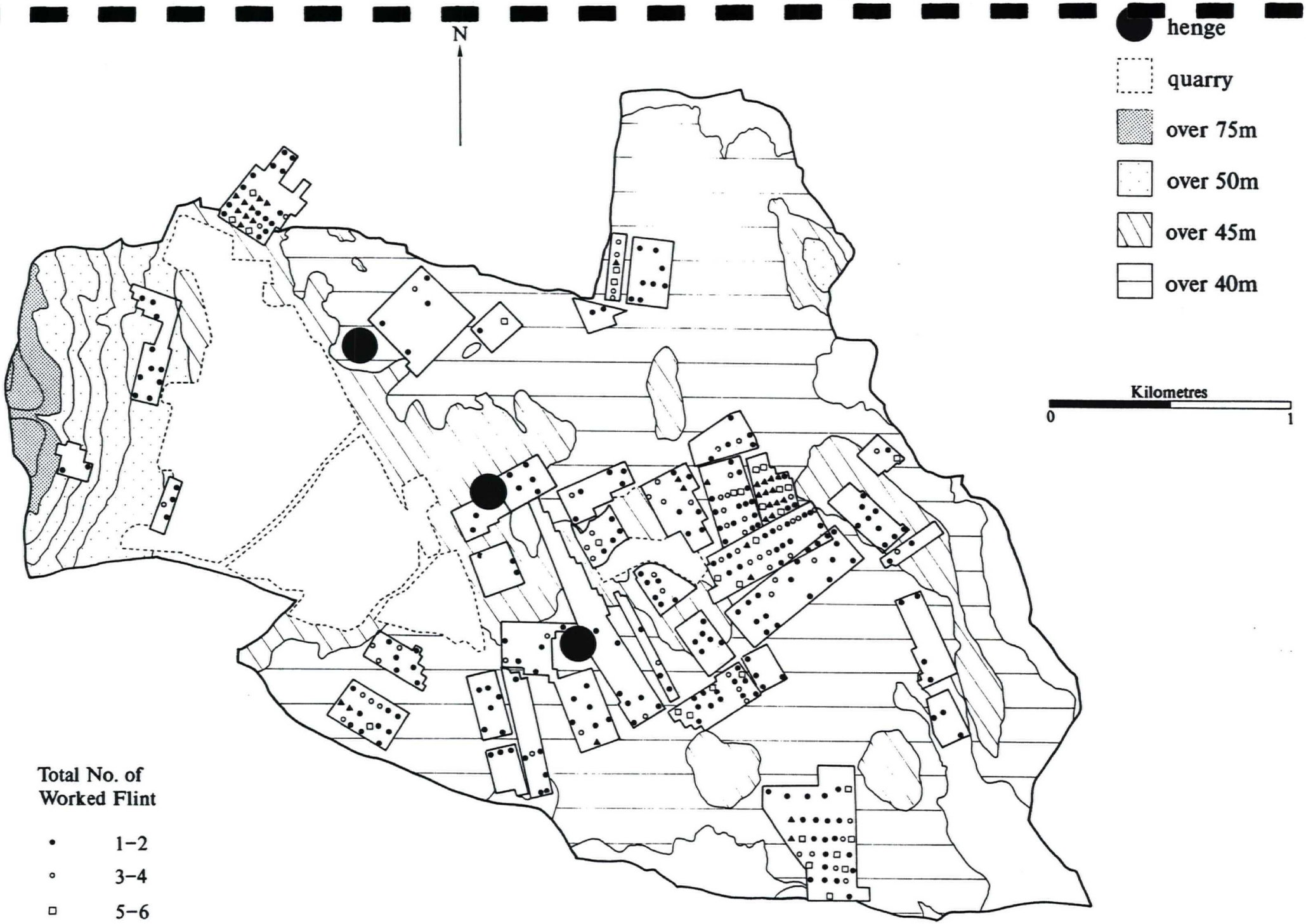

Figure 2: The distribution of worked lithics from fieldwalking across the study area.

possible that groups only temporarily settled across the landscape as they visited the ceremonial complex.

The surface collection completed in 1997 produced a small assemblage of 452 pieces of worked flint and chert of which the vast majority were from just two fields (**Figure 2**). The clustered distribution of the lithics closely respects earlier patterns. *Fields 31* and *31a*, nearby to the central and northern henge, contained next to no material. This included a small collection of 7 flakes, 1 blade, and 1 spall, which were all from secondary or tertiary stages of lithic reduction. There was also a later Neolithic/early Bronze Age end scraper and part of a Bronze Age knife or sickle. The quantity of worked flint and chert slightly increases across *Field 33*, located some 750m from the northern henge: it produced a collection of 18 pieces. This included 3 cores, which could be assigned to the later Mesolithic or early Neolithic, 2 scrapers and a possible Beaker piercer. However, as with the earlier results, it is the more distant areas which produced far larger quantities of worked flint and chert. The largest concentration was from *NOST 1* located approximately 700m to the north of the northern henge. It produced 266 pieces or 59% of the total 1997 assemblage. The scatter dates from the later Mesolithic to the early Bronze Age, although much of the material may be assigned to the later Neolithic and Beaker periods. Like other concentrations from the study area it produced a relatively low percentage of retouched tool types and cores but a high proportion of flints from tertiary stages of lithic reduction (7%, 6% and 39% of the total for the field respectively). In contrast was *Field 32* to the south of the study area, over a kilometre from the nearest henge monument. This produced 117 pieces of worked lithics or 25% of the total 1997 assemblage. It contained a higher percentage of retouched tool types and cores (15% and 9% of the total for the field respectively). The majority of these diagnostic pieces date to the later Neolithic and early Bronze Age. This scatter may accordingly represent a previously unknown settlement concentration which is contemporary with the construction of the henge monuments. The high density of material from *NOST 1* and *Field 32* is not evident in the three remaining areas of surface collection. This is despite the fact that they were all some distance from the henge complex. *Field 36* produced just 39 pieces of worked flint and chert. This included only 2 scrapers and 2 cores which date from the later

Mesolithic to the early Bronze Age. Such a small amount of material indicates an edge to the concentration which was identified in those fields immediately to the north by previous fieldwalking. The extremely low numbers of worked flint and chert from *Fields 34-35* indicate that the ridge which defines the eastern edge of the study area was not a favoured location for activity. This corresponds with the results of earlier surface collection from this part of the landscape.

The evidence from the fieldwalking undertaken in 1997 again indicates that activity across the Thornborough landscape was consistently structured over a long period of time. There seems to be a striking contrast, from the later Neolithic onwards, between the immediate vicinity of the monument complex, which produced next to no surface material, and more distant areas from which the majority of the total lithic assemblage has been collected. It is as though a distinction was repeatedly maintained between what were 'sacred' and 'profane' parts of the landscape. This conclusion is also perhaps demonstrated by the extremely small amounts of lithics and pottery from the excavations undertaken at the monuments. Social tradition may have effectively led to the plateau, upon which the henges are sited, being kept clear of occupation as groups undertook the various celebrations and commemorations associated with these sites. The suggestion that the two zones could have been differently perceived is reiterated by the largest of the known surface concentrations. This was found at the only location in the local landscape from which visibility across the central plateau is entirely blocked. The complete obscuring of all three henge monuments, by the rising relief of a low ridge, is specific to this one place and should perhaps be seen as representing the very deliberate selection of an area for temporary occupation.

3. THE SOUTHERN THORNBOROUGH HENGE: SURVEY AND EXCAVATION

3.1 INTRODUCTION

It has always been assumed that the three henge monuments were the product of one major phase of building. But the 1996 excavation of the outer ditch at the southern

henge suggests that their construction may have been both more gradual and complex (**Figure 3**). It produced evidence for three distinct phases of construction which were soon followed by a deliberate attempt to level the outer earthwork (Harding 1996a). The first of these consisted of the digging of a shallow quarry ditch, a little over 2.5m wide, and the erection of an external bank of simple dump construction. The next phase dates to when the ditch was more or less fully silted but the bank was still extant. A second and very much narrower ditch was dug which appears to have cut into the original feature. The spoil was used to extend the existing bank and effectively close-off part of the associated causeway. The upstanding earthwork was again remodelled during a third phase of construction. Shortly after the extension of the bank a narrow and steep-sided slot trench was dug into its inner side. It is evident that a number of small posts were erected within the slot, yet the feature appears both too shallow and narrow for the bedding-trench of a palisade. Rather, it is more likely that it held some form of wattle fence. It respects the original causeway which was also marked at this time by five small single uprights.

The outer ditch of the southern henge may have therefore been the product of periodic construction. It could also be argued that the construction of the rest of the site, and indeed the other two henge monuments, was very much more complex than previously thought. It should be noted that the outer ditch of the three henges is clearly more segmentary and interrupted than their continuous inner ditch (Harding 1997, fig.4). In this sense, they are reminiscent of earlier Neolithic forms of construction. There are also striking differences in the size of these two features. As mentioned, last year's excavation revealed an outer ditch of modest construction. This can be compared with the more imposing inner ditch. An earlier excavation at the central henge recorded a feature which was 17.7m wide and 2.1m deep (Thomas 1955, fig.3). The same conclusion is evident by comparing the associated banks. While the excavated outer bank was just 2.4m wide, the earthwork of the inner bank is as much as 18m across. But how do we account for such differences? It surely seems unlikely that the builders went to such great efforts to construct a massive enclosing inner ditch, and indeed bank, while also creating a smaller and more regularly interrupted external feature. Put simply, it is difficult to consider these two earthwork perimeters as possessing similar functions. It is therefore possible that the monument was the result of two distinct

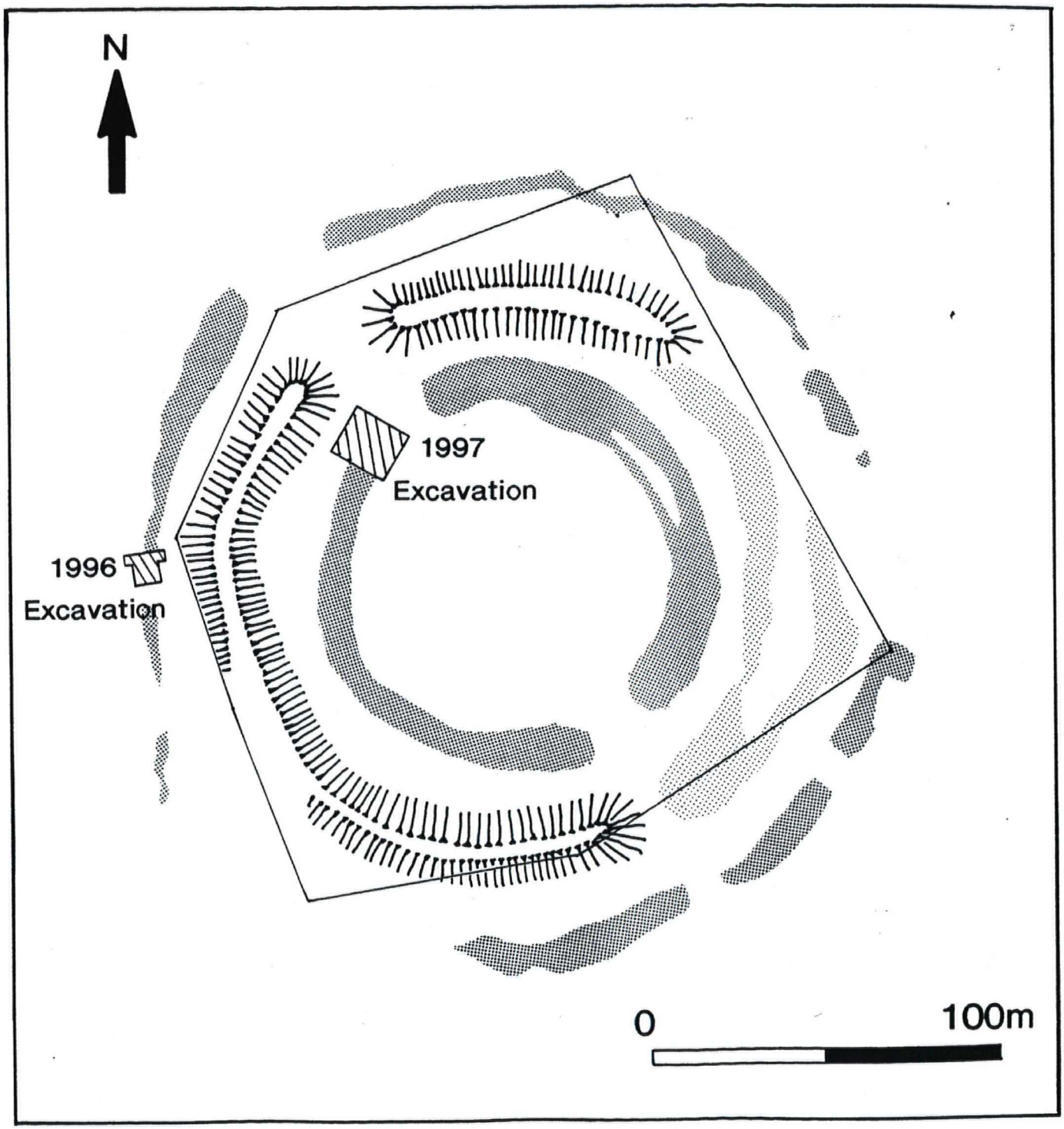

Figure 3: The location of the 1996 and 1997 excavations at the southern Thornborough henge monument.

phases of construction with the outer ditch and bank actually earlier than the inner perimeter.

A principal objective of the season of fieldwork in 1997 was the excavation of part of the inner ditch in order to evaluate the possibility of such a sequence. It was intended for a 20m by 15m excavation trench to be located across the terminal of the feature which flanked the northern entrance of the monument (**Figure 3**). The inner ditch does survive as a badly denuded earthwork and it was seen as essential that the excavation should be preceded by extensive geophysical prospection and a contour survey. The former was undertaken by Dr. Armin Schmidt of the Department of Archaeological Sciences, University of Bradford. This involved both a resistivity and magnetometer survey, with a reading interval of 0.5m, across a 20m by 50m grid in the vicinity of the northern entrance. The contour survey, by contrast, included the entire enclosed area of the monument and the inner ditch and bank. It proceeded with the use of a Geodolite Total Station and the LSS. software programme. It employed a combination of closely-spaced readings in a grid formation and intelligent points based upon the surviving topography of the monument.

3.2 CONTOUR SURVEY RESULTS

It is apparent that past agricultural activity has caused severe erosion and disturbance to the southern henge monument. While the outer ditch is still under cultivation and has been extensively levelled, intensive ploughing over the past two decades has also destroyed the outer edge of the inner bank on the east, south and west sides of the monument (Harding 1996b). Furthermore, there is a record of bulldozing in the 1960s and the results of this may have been the levelling of the south-east section of bank and the redeposition of this material across the top of the north-east section of ditch. The levelling of the earthwork is also apparent on the western side of the monument. These areas of disturbance are all highlighted by the results of the contour survey (**Figure 4**). It is apparent that the bank on the eastern side of the monument is no longer distinct from the inner ditch. The effects of bulldozing on this part of the site are also illustrated by what may be a trench scar, while the proposed mechanical levelling of the north-east ditch section is demonstrated by a similar indication of disturbance.

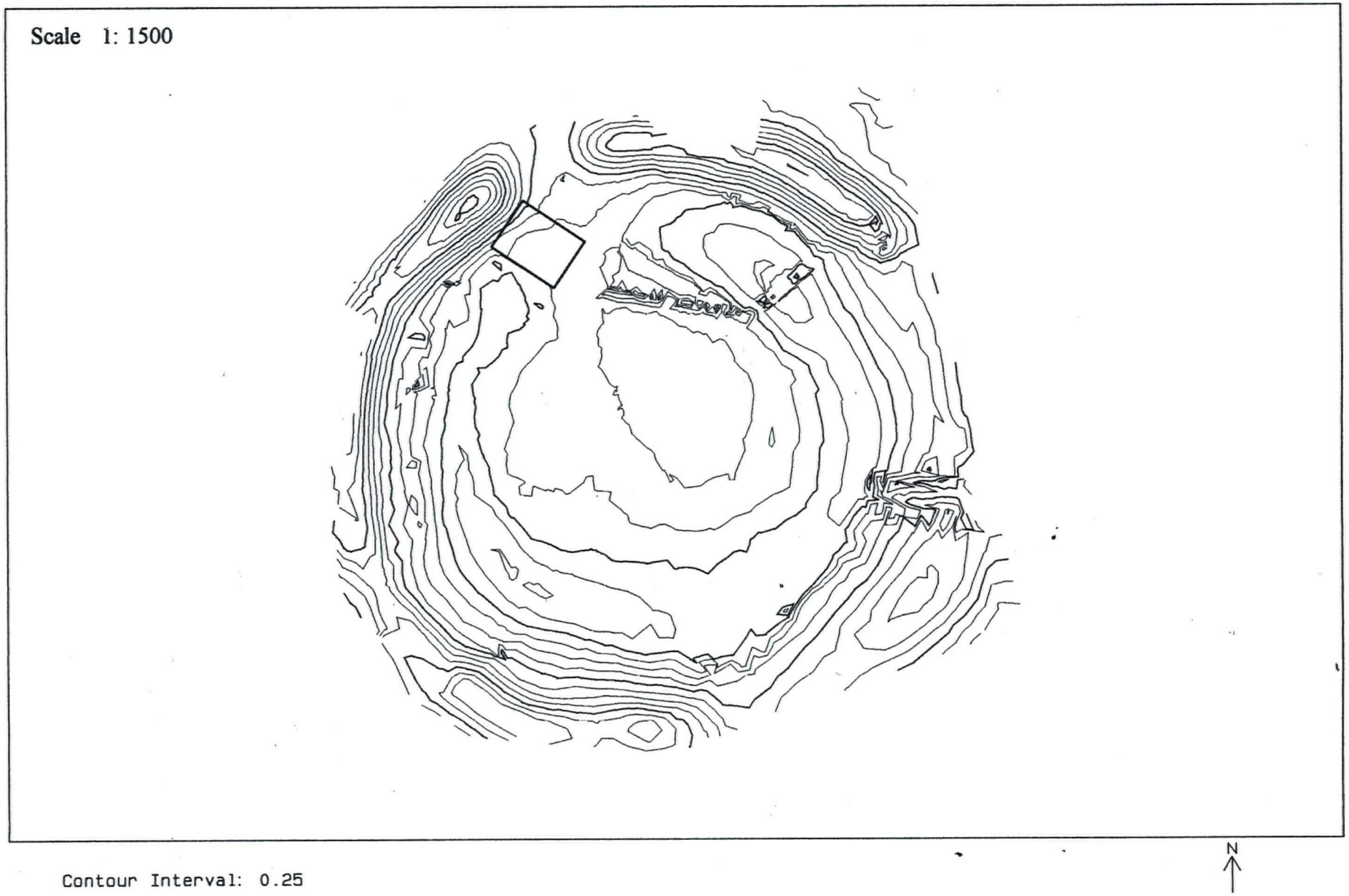

Figure 4: Contour survey of southern Thornborough henge monument.