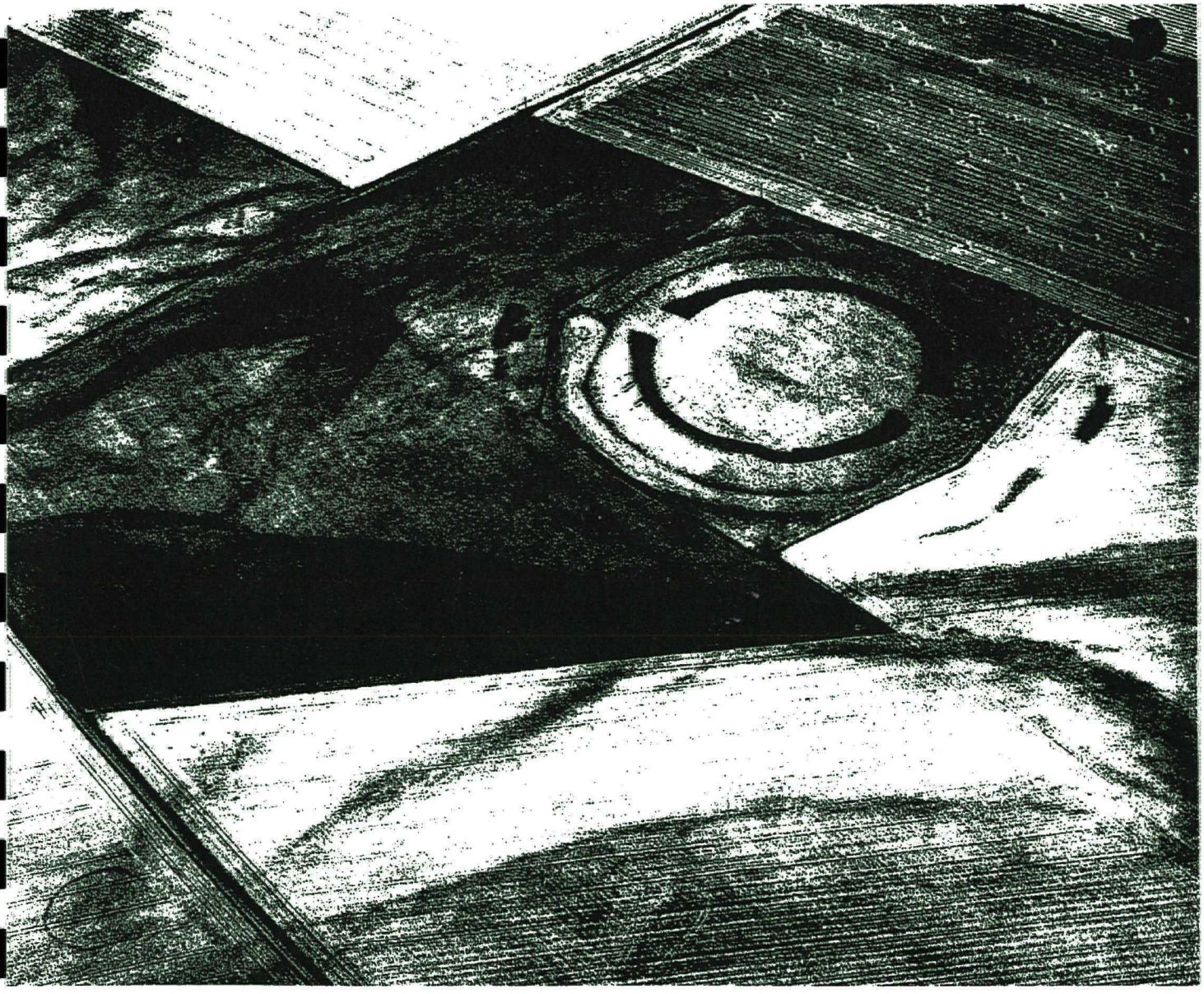
Vale of York Neolithic Landscape Project

Interim Report 1996: Thornborough



Department of Archaeology, University of Newcastle

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Abstract

The focus for fieldwork in 1996 was the southern Thornborough henge. This included extensive surface collection around the monument, a resistivity and contour survey across the western half of its outer ditch, and finally, the excavation of a part of this important structural feature. A 'new' ovate-shaped enclosure was also evaluated. The results of the fieldwalking emphasized the apparent lack of settlement evidence in the vicinity of the monument complex. The outer ditch of the southern Thornborough henge was accurately sited, and the excavation of a terminal of this feature and its adjoining entrance illustrates the structural complexity of the site. This included the discovery of an external bank. It seems that the outer perimeter of the henge was the product of a number of distinct phases of construction. Stratified charcoal will provide a more accurate chronology for the development of the monument. The fieldwork in 1996 also illustrates that the earlier monumental foci at Thornborough was more complex than previously thought. The excavation of the small ovate-shaped enclosure appears to demonstrate that this site may have been generally contemporary with the early Neolithic cursus monument.

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SURFACE COLLECTION AT THORNBOROUGH

INTRODUCTION

One of the primary aims of the *Vale of York Neolithic Landscape Project* is to assess the relationship between the monuments at Thornborough and wider patterns of settlement. It is believed that a long-term programme of fieldwalking across this extensively ploughed landscape will provide significant information, and as such would complement the high levels of surface collection achieved around the Stonehenge and Cranborne Chase complexes in southern England (Barrett et al 1991; Richards 1990). The study area selected for fieldwalking encloses a landscape approximately 4km from E-W. and 3km from N-S. (**Figure 1**). At the centre of this zone are the three henge monuments, with the middle site located upon an earlier cursus (Thomas 1955). These sites were built across the long axis of a plateau, although both the northern and southern henge monuments are located immediately beyond the 45m contour which defines this flat area. Much of this plateau has now been destroyed by sand and gravel working. It is surrounded to the E. by a marginally lower-lying area, while to the S. the landscape slopes gently down to the banks of the River Ure. Across the E. part of the study area the landscape has a more undulating appearance, with deposits of till defining a number of low hummocks. On the opposite side of the study area, to the W. of the quarry workings, lies the rising slopes of a steep ridge. This scarp rises from 45m to 75m and forms the highest part of the study area with 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 two seasons of surface collection in 1994 and 1995 was undertaken across twenty six ploughed fields, most of which were from the low-lying area which surrounds the central plateau and the more undulating landscape to the E. 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 separatedly bagged. This enabled the detailed locational recording of the collected assemblage, and the same methodology was employed during the 1996 season. A total of five ploughed areas were fieldwalked during this third season (*Fields 20A, 27, 28, 29 & 30*). These were all located in the vicinity of the *Thornborough South* henge monument (**Figure 1**). The total sampled by surface collection was 19.6ha, which compares with 39.8ha and 68.5ha for 1994 and 1995 respectively.

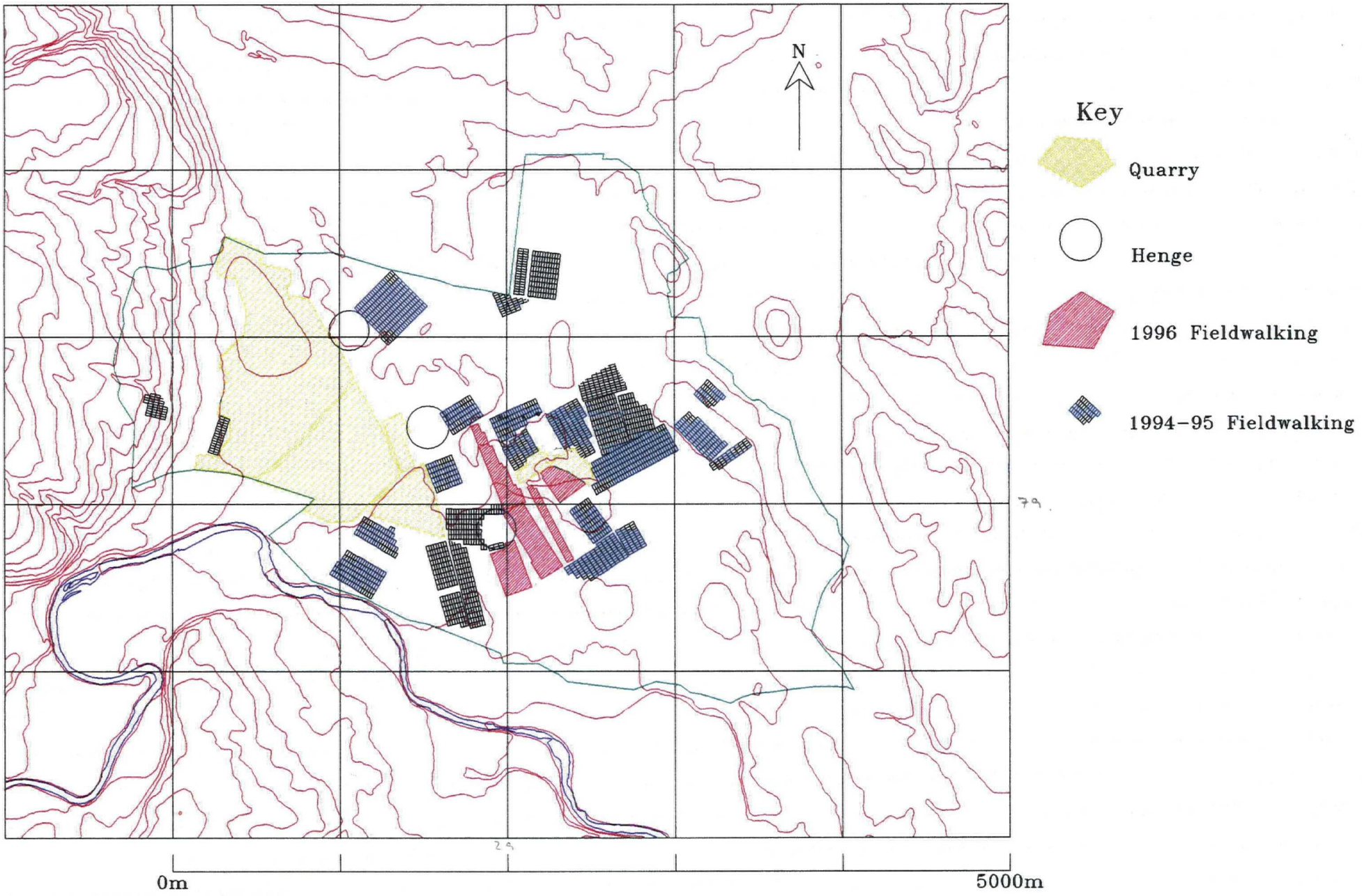

Figure 1: Extent of fieldwalking in the study zone.

RESULTS

The total size of the collected lithic assemblage in 1996 was low. There were 67 pieces of chipped flint and chert with *Fields 27* and *30* producing the largest quantities (23 and 22 struck lithics respectively). This represents only 8% of the total overall assemblage from the three seasons of fieldwalking. The majority of the flint collected in 1996 was debitage from the secondary and tertiary stages of lithic reduction: about 60% of the total were flakes, chunks, lumps or chippings, while a little over 20% were blades. A significant proportion of these were produced in the process of pressure flaking and tool trimming. It is also interesting to note that the total collection only included 5 retouched pieces (about 7% of the 1996 assemblage), and that with the exception of a microburin these were all of non-diagnostic type. The evidence therefore seems to indicate that apart from a few finely chipped flakes and blades there were no tools being either produced or discarded in the area immediately to the S. and E. of the *Thornborough South* henge monument. Such an absence of retouched pieces, and more specifically identifiable tool types, does correspond with the previous results from fieldwalking, although these items become more common with those larger scatters found at a greater distance from the henge complex. However, they constitute a small part of even the latter. Together with the high proportion of associated debitage this suggests that these larger scatters are likely to be the product of repeated short-term occupancy rather than permanent settlement. This is certainly of interest when considered in association with the possibility that the monuments may have been the result of episodic construction *(cf. below)*. The fieldwalking in 1996 also produced 4 cores, 4 core rejuvenation flakes, and a hammer stone (13% of the total assemblage), while 2 small sherds of unidentifiable late Neolithic / Early Bronze Age pottery were found from the site of a ploughed round barrow in *Field 29* .

The relatively low incidence of flint from those fields walked in 1996 further reiterates the impression that there was a general absence of settlement from the area around the central plateau upon which the monument complex was sited (cf. *Interim Report 1995*). A striking contrast has emerged over the last two seasons between those parts of the landscape which are immediately adjacent to the three henge monuments, and have produced next to no surface material, and those more distant areas, over about 600m from the complex, from which the majority of the total lithic assemblage has been collected. *Fields 20A, 27, 28, 29* and *30* are all located within the former zone and the low numbers of worked flint and chert from these ploughed areas clearly emphasize the above pattern. It is accordingly not suprising that the amount of struck pieces from these five fields increases with their distance from the *Thornborough South* henge monument (**Figure 2**). This is clearly illustrated by the evidence from *Field 27*. The N. half of the collected area was within about 200m of the latter site and produced few lithics. However, further downslope there is a very noticeable increase in the

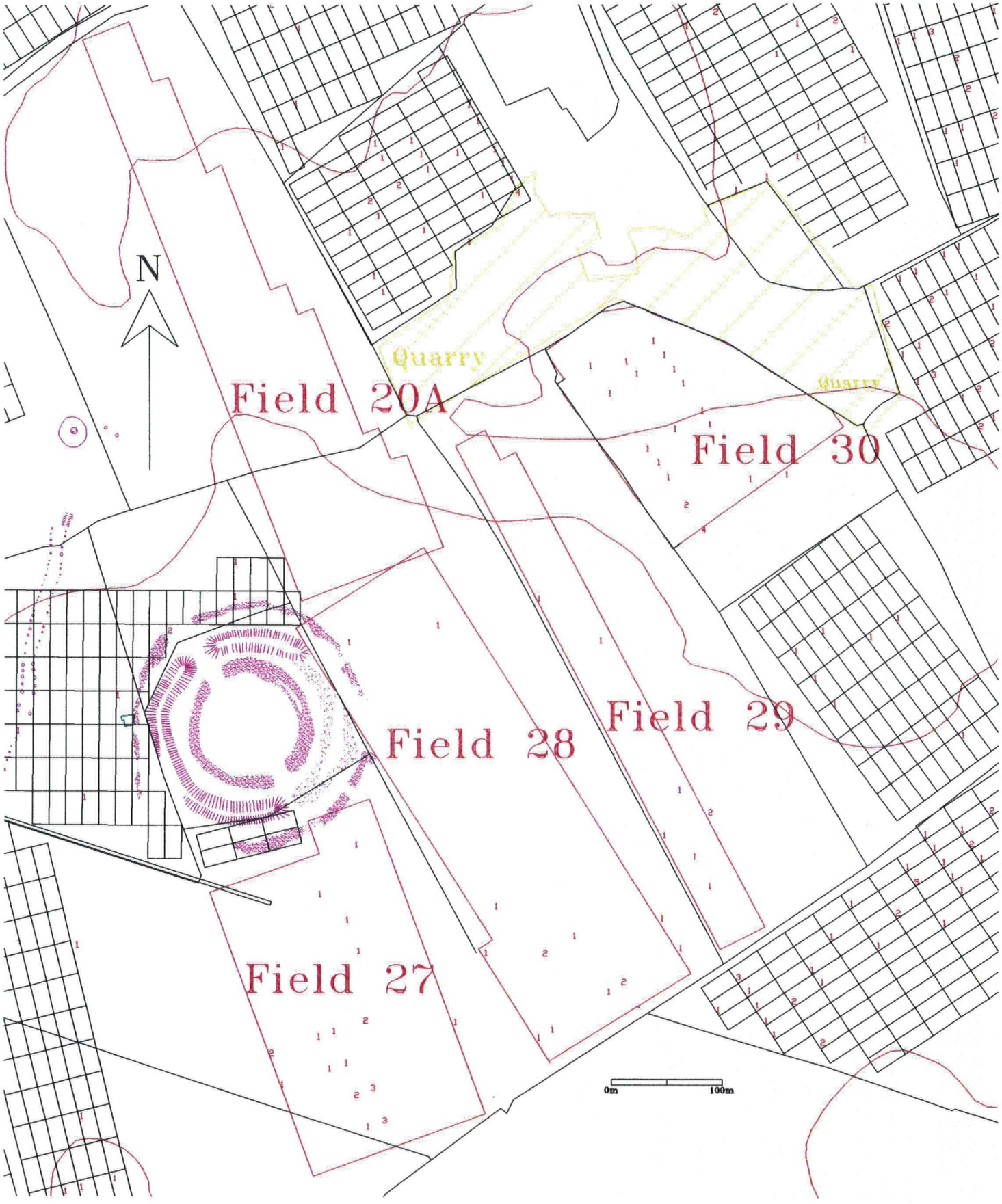

Figure 2: Distribution of Lithics in Fields 20A, 27, 28, 29, and 30.

Figure 3: Lithic concentration to the east of Chapel Hill.

total amount of worked flint and chert. This occurs at a distance of about 350m from the *Thornborough South* monument. As mentioned, such results clearly correspond with the distribution of material collected in 1995. Fieldwalking during this season located what remains the largest scatter from across the study zone to the E. side of Chapel Hill some 900m from the nearest henge (**Figure 3**). It seems that the majority of these struck lithics date to the later Neolithic and early Bronze Age and may therefore be generally contemporary with the henge monuments. It is perhaps important to note that the E. side of Chapel Hill is one of the few locations where visibility across the central plateau, upon which these sites are located, is completely blocked by the rising relief of the local landscape. This would have obviously emphasized the distinction between the 'ritual' and 'domestic' parts of the landscape: an opposition which also seems to be demonstrated by the apparent absence of material culture from the excavations which have been undertaken at the monuments *(cf. below)*.

The chronological affinities of the worked flint and chert discovered in 1996 range from the later Mesolithic to the early Bronze Age. There was, however, a noticeable contrast between *Field 27*, on the one hand, and *Fields 28, 29* and *30*. The former area produced a microburin, a core, and two core rejuvenation flakes, all of which can be generally classified as later Mesolithic / early Neolithic. Much of the debitage also seems to be associated with this period. At least 47% of the assemblage from *Field 27* can therefore be assigned an early date. This contrasts with *Fields 28, 29* and *30* with their larger proportion of later Nesolithic / early Bronze Age material (50% of total). Only about 11% of these lithics actually seem to date to the later Mesolithic / early Neolithic. This is important for the latter group of worked flint and chert are actually more distant from the *Thornborough South* henge monument when compared with those in *Field 27*. This appears to suggest that the focus for activity during the later Neolithic and early Bronze Age had clearly become spatially removed from the location of this monument. A similar interpretation is possible for the assemblages collected in 1994 and 1995. It is apparent, for instance, that some of the lithics from *Field 8*, on the W. side of Chapel Hill and at a distance of about 300m from the nearest henge, demonstrate a middle Neolithic affinity. Further to the E., on the other side of Chapel Hill, the walked fields have produced predominantly later Neolithic or early Bronze Age material. Some of these flint and chert pieces have a particular similarity with lithic assemblages found elsewhere in northern England which are associated with Grooved Ware and Beaker pottery.

THORNBOROUGH SOUTH HENGE MONUMENT:

the survey and excavation of the outer ditch

INTRODUCTION

The principal objective of the season of fieldwork in 1996 was the excavation of a part of the outer ditch at the *Thornborough South* henge monument. The feature has now been extensively levelled, but a series of aerial photographs clearly illustrate the irregular and segmentary outline of the outer ditch (**Figure 4**). This appears to suggest that the outer perimeter of the henge had been constructed as a series of interrupted ditches which greatly varied in both their length and width. It is evident that while it was interrupted by two major causeways- opposite the NW. and SE. entrances through the inner ditch and bank- there were at least two other smaller breaks in the outer perimeter. It is also apparent that this ditch tapers outwards to form a section on the W. side of the monument which is very much narrower and straighter than elsewhere. It then fails to continue around to the SW. with the result that a significant section of the site is undefined by the outer ditch. The feature is therefore unusual for a henge monument and clearly contrasts with the appearance of the continuous inner ditch. It is, indeed, reminiscent of those methods of monument construction which date to the earlier Neolithic, and it may accordingly be possible that the site was constructed during at least two distinct phases. A similar conclusion is apparent for the central and northern henge monuments.

It was intended for the area of excavation to be located across the terminal of the outer ditch which is evident as a cropmark immediately to the E. of the henge bank. It was thought that this location would not only provide valuable evidence about the original appearance of the outer perimeter, but could also be linked with an examination of part of the associated causeway. The apparently plough-levelled status of the ditch implied that the siting of the excavation trench could only follow from an intensive survey across the area of the cropmark. Both geophysical prospection and a contour survey were undertaken, and it was decided to extend this fieldwork to include the entire W. circuit of the outer ditch (**Figure 4**). A grid of seventeen 20m by 20m survey squares were established and both techniques of investigation were applied across the resulting area. The contour survey proceeded with the use of a total-station EDM. which recorded a spot-height at every 2m interval of the grid. This was complemented by a resistivity survey with a reading interval of 1m.

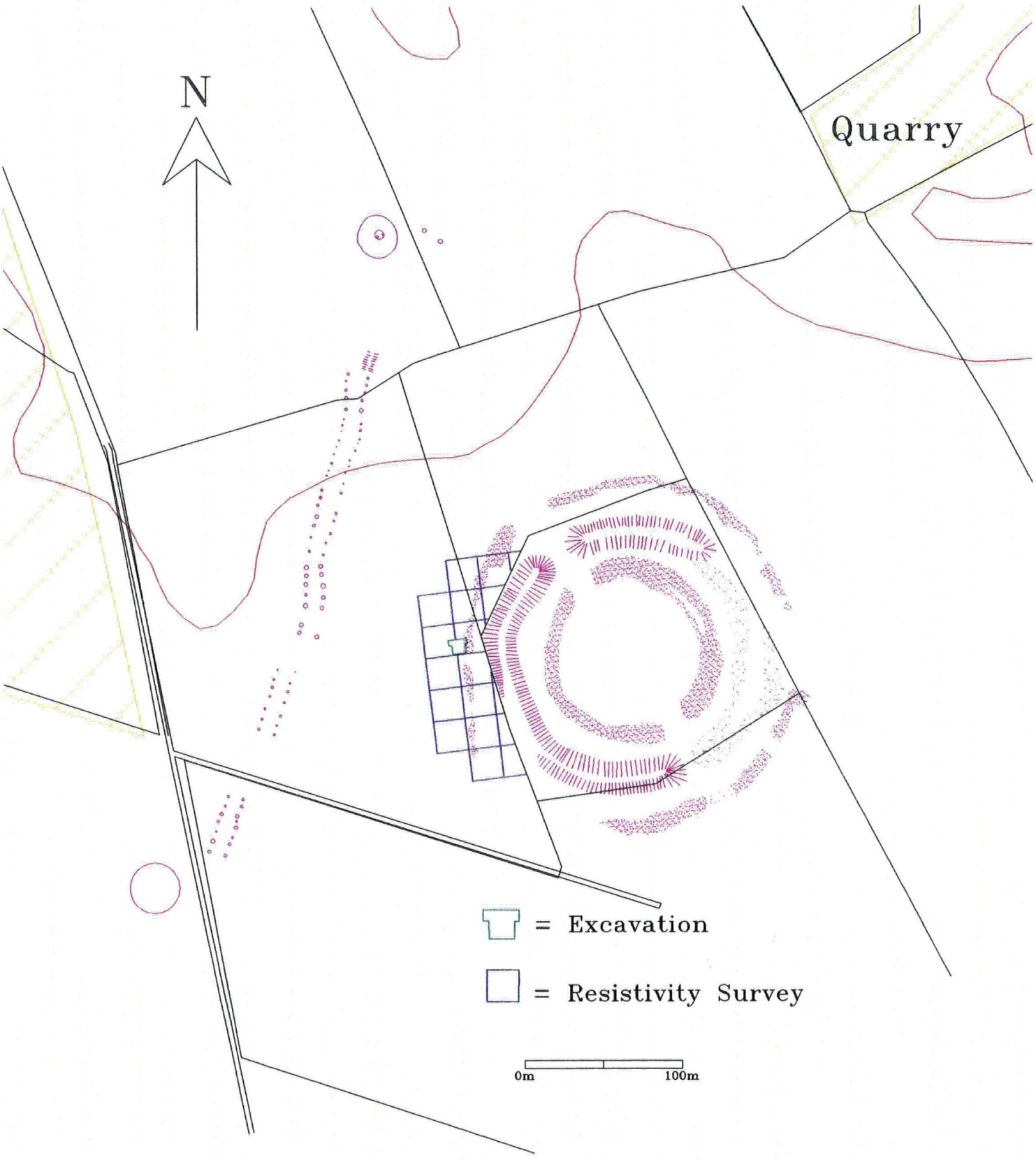

Figure 4: The location of the survey and excavation at the Thornbrough South henge monument

SURVEY

The resistivity survey produced complex results (**Figure 5**).The outer ditch of the henge was clearly evident to the north of the survey where it reached a maximum width of about 8m (**feature a**). The visibility of this section of its circuit is perhaps not surprising when the apparent breadth of the cropmark to the NW. of the monument is noted. The outer ditch is also evident in the southern part of the survey (**feature b**), and the straight and narrow character of this feature is similar to the cropmark evidence. The middle section of the outer ditch is more problematic. The causeway, which is so distinctive on the aerial photographs, is clearly evident (**feature c**). However, on either side of this apparent entrance is a large and irregular area of low resistence (**feature d**). It seems likely that these 'patches' partly demonstrate the existence of what are relatively broad but shallow ditch terminals, the fill of which has been spread by intensive ploughing. The widening of the outer perimeter at these terminals is certainly evident on some of the aerial photographs. Yet there appears to be an additional feature which runs parallel with the present fence line around the henge monument, and then dissect the circuit of the outer ditch in the vicinity of the two 'patches' (**feature e**). Aerial photographs taken in the 1950's suggest that the fence is a relatively recent field boundary. Originally it seems that there was a hedge row sited a little to the west of the present boundary, and this appears to be the most likely explanation for **feature e**. There are also a number of regularly spaced lines of low resistence which are orientated at right angles to this apparent henge row (**feature f**). There is no other evidence for the presence of land drains and the features seem too widely spaced to be the remains of either ridge-and-furrow or more modern deep sub-soiling. The derivation of these linear features is therefore presently uncertain, although their regularity suggests their association with agriculture, and more particularly, the drainage of an area which may have become readily waterlogged due to the presence of the outer ditch. The final point of interest in the break in solid geology which occurs to the S. of the survey grid (**feature g**).

There appears to be a close correspondence between the results of the resistivity and contour survey, although the long-term effects of ploughing has left only the most subtle traces of the former earthwork. A dip in the land surface to the N. of the survey- which was actually visible to the naked eye- was the most noticeable feature. This is the very location where both the aerial photographs and the above resistivity survey illustrate that the outer ditch was widest. Its survival as an earthwork was particularly apparent in the survey square which was located nearest the N. entrance to the henge monument. It was apparent that the outer ditch had been more extensively levelled further to the S. While its former presence was demonstrated by the contour survey the differences in ground surface were never more than a few centrimetres. There were no indications of the ditch beyond the location of the causeway in the outer circuit.

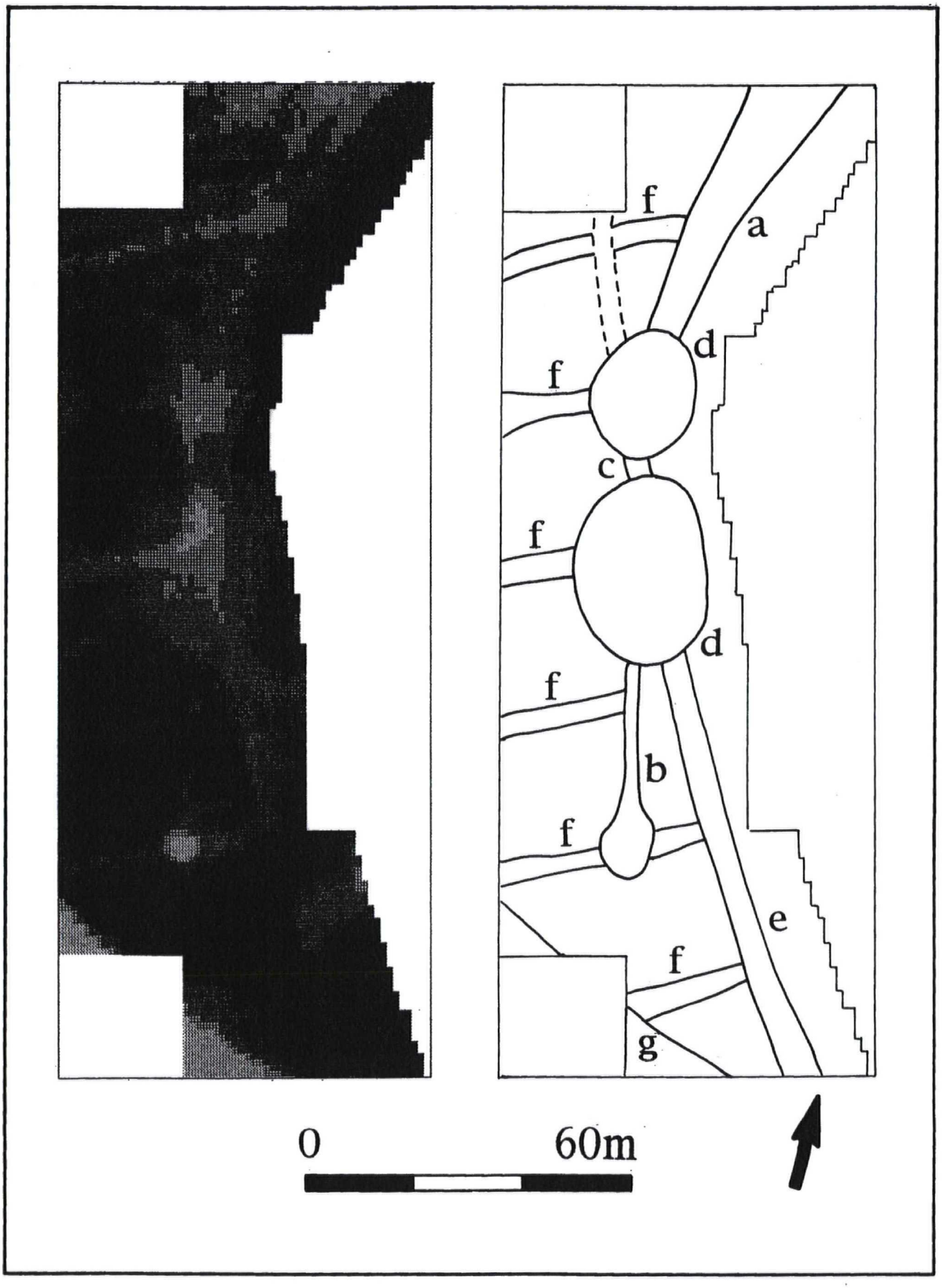

Figure 5: Results of resistivity survey at the Thornborough South henge monument.

It was also evident that there were slight rises in the land surface immediately to the W. of the apparent ditch, although this was only noticeable in the N. half of the survey. It is difficult to ascertain whether this represents the former presence of an archaeological feature since the land does naturally rise to the W. of the henge monument. However, the results of the subsequent excavation suggest that this may indeed be the remnants of the former bank *(cf. below).*

EXCAVATION

The success of both the resistivity and contour survey enabled the accurate siting of the area of excavation across the outer ditch terminal and part of the associated causeway. It was located at SE 2885 / 7885 (**Figure 4**). The trench was 50 sq.m in size. The excavations revealed a number of important structural features (**Figure 6**):

i) the outer henge ditch was located to the NE. of the excavation trench. The W. side of this feature gently slopes downwards to form a rounded, but irregular, bottom (**Figure 7**). The cut rises more sharply on the E. side of the feature. It has a maximum depth of only 0.60m from the present top of the feature. In outline the ditch abruptly tapers to a sharply defined terminal 2.9m from the north trench section. The ditch has a maximum width of 3.0m. It appears that its recorded appearance was the result of at least two separate phases of activity *(cf. below).*

ii) the remnants of a bank of simple dump construction was located immediately to the W. of the outer henge ditch. This feature was not easily identifiable in plan but was clearly evident in the N. and W. sections (**Figure 7**). It had a width of at least 2.40m, although the existence of a lower section of bank material, in the NW. corner of the excavation trench, may suggest that it was originally about 3.50m wide. It survives to a maximum height of 0.34m in the N. section. The bank is known to have extended for 5.20m from the N. section, but it should be noted that its S. end had been disturbed by more recent rabbit burrowing. It may have therefore been more extensive, although it is unlikely to have continued for more than 6m from the N. trench section. There is some indication that its length was the product of two phases of construction *(cf. below).*

iii) the remains of a steep-sided and narrow slot trench was also revealed. This appears to have been cut into the E. side of the bank sometime after its initial construction. It extended for 5.20m from the north section, apparently terminating at what is thought to be the same point as the associated bank. The feature was irregular in outline with a maximum and minimum width of 0.38m and 0.25m respectively. At the S. end, where it narrows to form a rounded terminal, the cut of the feature

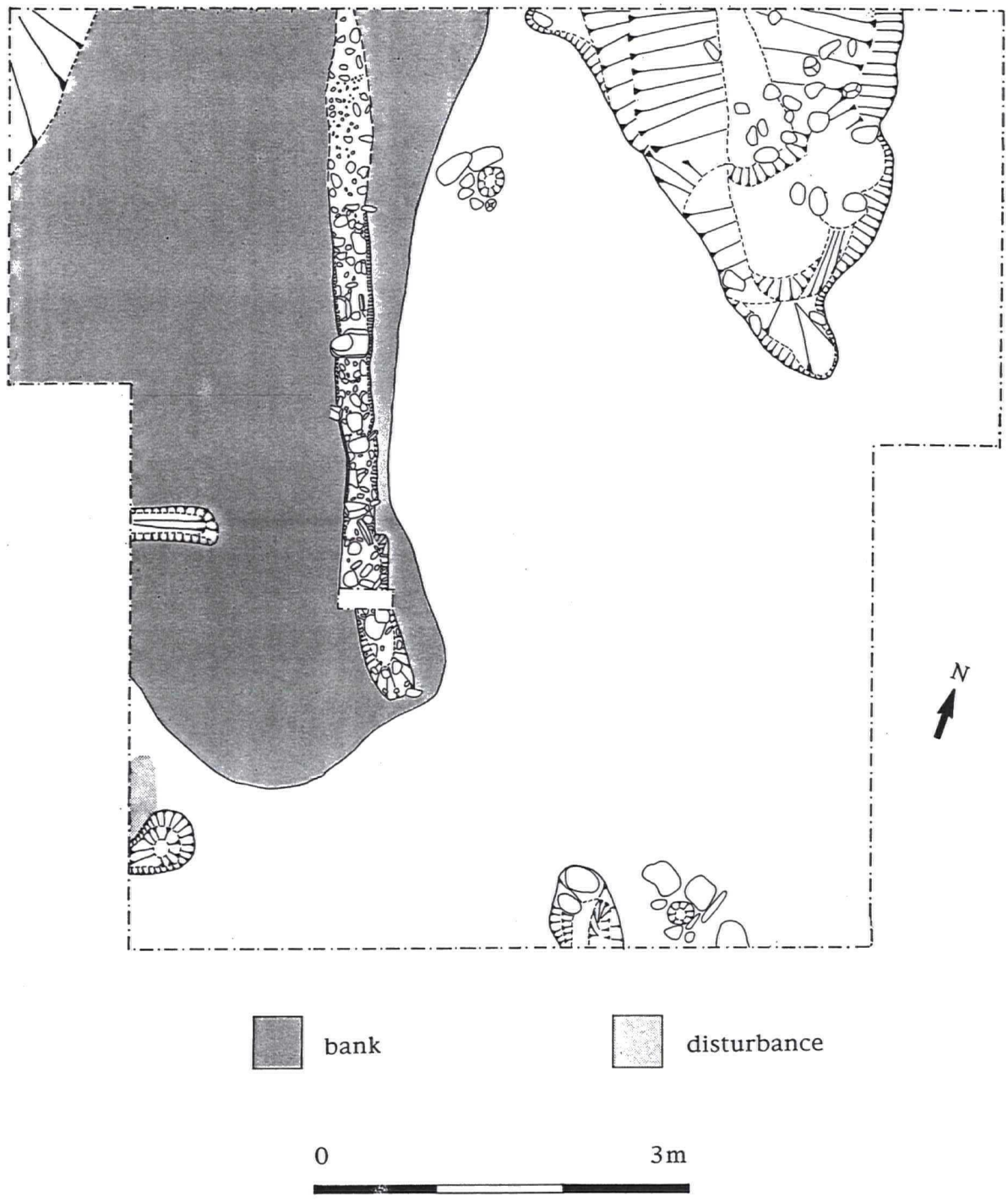

Figure 6: Plan of the excavation trench at the Thornborough South henge monument illustrating the outer ditch, the bank with slot trench, and the post-sockets.

possessed a flattened 'V'-shaped profile with a depth of only 0.22m. Elsewhere it has more of a 'U'-shaped profile with a flat bottom. It reached a maximum depth of 0.30m from the apparent top of the feature. The position of what may have originally been stone packing appears to indicate the location of a number of timber uprights.

iv) there were five other possible post-sockets in the area of excavation. The tops of each feature had been badly disturbed but they survive as cuts into the natural gravel. Three appear to have been located across the causeway of the outer ditch. These are of irregular shape with maximum diameters of 0.56m, 0.42m and 0.20m. They each possess a U-shaped profile with a flattened bottom and are clearly associated with a concentration of large stone. An additional post-socket was found between the bank and ditch. It had a diameter of only 0.28m, a 'U'-shaped profile, and was again associated with some significantly sized stone. The deepest of these apparent features was inserted into the bank. This oval post-socket again had a 'U'-shaped profile and a diameter of 0.33m.

The existence of these features illustrates the structural complexity of the outer perimeter of the *Thornborough South* henge. This was not expected prior to excavation since the extensive series of aerial photographs simply illustrate the presence of the ditch and none of the other associated features. Their absence appears to be partly a result of extensive plough damage, although it does seem that the earthwork may have also been deliberately levelled during a single episode of destruction *(cf. below)*. The most notable discovery was the bank. Its apparent contemporaneity with the outer ditch is clearly demonstrated by the close spatial association between these two features (**Figure 6**). The position of the bank indicates that movement through this perimeter would have been orientated SW-NE., and the importance of this entranceway would have been emphasized by the presence of the timber uprights. It is also important to note that the shallow and irregular appearance of the ditch suggests that its primary function was to provide quarry material for the construction of an outer bank. This is an important observation when considering the henge monument for it reiterates the general impression that this feature was of a markedly different appearance to the more physically imposing inner ditch. The excavations at the central henge which were undertaken in 1952 recorded an approximate depth and width for the inner ditch of 2.10m and 17.70m respectively (Thomas 1955, 432). This emphasises its role as an impressive barrier to movement. In contrast, the scooped-out terminal of the outer ditch is only 0.60m deep (from the present top of the feature) and 3.0m wide. A similar disparity is evident when the width of

Figure 7: The north and west sections of the excavation trench at Thornborough South henge monument.

the inner and outer banks are compared. It is, in other words, difficult to consider these two earthwork perimeters as possessing similar functions.

The excavation has therefore provided valuable evidence as to the physical appearance of the outer henge perimeter. The results also indicate the chronological complexity of the structure. The N. and W. sections of the trench illustrate what appears to be at least three distinct phases of construction, and it also seems that these were shortly followed by a deliberate attempt to level the surviving features (**Figure 7**). The latter is indicated by a band of stoney loamy sand which extends from the apparent apex of the bank across the entire top of the ditch. The first of the construction phases consisted of the digging of a shallow quarry ditch and the erection of an associated bank. There is evidence for the existence of a berm between these two features. It seems that the top of the original ditch may have been a little over 2.50m in width. It is also perhaps likely that the inner edge of the bank extended for a little more than is apparent in the N. section, only to be altered by the later remodelling of the outer henge perimeter *(cf. below)*. The next major structural phase dates to a time when the ditch was more or less fully silted but the bank was still presumably extant. A second and very much narrower ditch was dug which appears to have cut through the western side of the original feature. It was approximately 1.30m wide at its top. This phase of activity may have been associated with the extension of the existing bank which effectively closed-off a part of the causeway across the outer ditch. The W. section illustrates the existence of a low platform which appears to have been added to the end of the original bank (**Figure 7**). However, it should be noted that at present there is no direct evidence for the contemporaneity of the second phase with the remodelling of the upstanding earthwork, and indeed, the steeply-sloping S. end of the original bank suggests that this extension may have been added soon after its construction.

The construction of the narrow and steep-sided slot trench clearly occurred after the extension of the bank, although there is no reason to assume a significant interval between these two additions to the outer perimeter of the henge monument. The chronological relationship of the slot trench with the recut of the outer ditch is less clear. It is important to note, however, that the primary ditch fill of the latter does suggest that redeposited bank material may have been initially incorporated into the silting of this feature (**Figure 7**). This is of significance for it argues against the contemporaneity of the recut with any fence, timber revetting or palisade which may have been built along the inner edge of the bank. It therefore seems that if any of these possible structures had indeed been placed within the slot trench then they most likely post-date the recutting of the ditch. This is further reiterated by the possibility that the upper edge of the slot trench appears to actually cut the ditch (**Figure 7**). It is also difficult to ascertain the original appearance and function of the former feature. It seems evident from the

distribution of its stone content that a number of small uprights had been erected within the slot, yet it appears both too shallow and narrow for the bedding-trench of a palisade. Furthermore, there is no stratigraphic evidence for the existence of timber revetting along the edge of the bank. Rather, it appears to be more likely that some form of fence, albeit supported by a number of uprights, was originally built into the slot trench. Such a structure would have physically emphasized what may have now been a denuded bank while also respecting the intervening causeway. Whether the erection of the five single uprights in the bank and entranceway was contemporaneous with the construction of this feature is presently unresolved. One of these posts was dug into the low platform, which was added to the original bank, and this may indicate that they do indeed date to this later phase of construction.

There is presently only limited evidence about the absolute chronology of these three distinct phases of construction. The fills of the two ditches and the bank material have, however, produced a large assemblage of charcoal. This will obviously enable the extensive radiocarbon dating of the above sequence. There was little material culture from the excavation and the complete absence of pottery is particularly striking. It seems likely that this reflects a deliberate attempt to keep at least this part of the *Thornborough South* henge monument clear of debris. The ploughsoil and sub-soil of the excavation trench produced a bladelet, a fragment of core, 4 flakes, a hammerstone and a broken scraper. The bladelet is clearly of later Mesolithic character, while the other pieces (which were all of chert) can be tentatively ascribed a later Neolithic / early Bronze Age date. The scraper is perhaps typical of the tool types associated with Woodland style Grooved Ware. A distinct group of 7 large chert flakes, a chert chipping, and a single piece of worked flint were scattered immediately to the S. of the ditch terminal. These were located, in other words, across part of what may have been an important causeway through the outer perimeter features. This suggests their contemporaneity with the original ditch and bank. The chert had clearly been struck on site and may relate to a single knapping event. The only other lithics from the excavation was an additional chert flake and a later Mesolithic blade in the ditch fill. These appear to be residual material.