

CURSUSES AND RELATED MONUMENTS
OF THE BRITISH NEOLITHIC
PART II

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PRESENTED FOR THE DEGREE
OF PH.D.
1985

CHAPTER XII

THE MATHEMATICAL DIMENSION

To an even greater degree than henges and stone circles, cursuses reveal the astonishing level of accomplishment in ground surveying achieved by the Later Neolithic inhabitants of Lowland Britain. Not all sites were of course laid out with the precision of the Bl series but in their differences lies the evidence of initial site survey and subsequent labour organisation.

A. MECHANICS OF PLANNING

i Antecedents

Many features of cursus planning are prefigured in the formal layout of both the ditches and mounds of earthen long barrows. Ditches have received relatively little attention despite indications at Fussell's Lodge, Wayland's Smithy II and the Winterborne St Martin bank barrow that they often formed integral features of the barrow and were not simply unplanned sources of mound material. Their consistent mirroring of barrow form has already been linked to early "setting out" ditches of long mortuary enclosure or Dalladies type (Chapter 8).

It is in the mounds themselves that the clearest surviving evidence of formal planning exists. Whilst ovate forms seem to have been of simple dump construction, trapezoidal and rectangular mounds were almost invariably embellished or revetted by wooden structures laid out in advance to quite exact plans.

The trapezoidal enclosure at Fussell's Lodge was twice as wide at the proximal end as at the distal and this pattern is repeated somewhat less precisely at Willerby Wold, Wayland's Smithy II and Belas Knap. At three of these sites the burial structures exactly bisect the facades and at

bisect the distal ends of the barrows. Boundaries of these mounds were presumably set by means of lateral offsets measured from an axial base line, a system sometimes given substance by stake fences.

Just as trapezoidal layout appears to be linked to a basic geometric figure so parallel sided sites often approximate closely to true rectangular form: the sides of the Wor Barrow enclosure diverged by only 0.6m (Pitt Rivers 1894.249) as, with the exception of the inexplicable bulge near its eastern end, did the turf sides of the Holdenhurst mound. An effort to include an earlier burial structure within the rectangular enclosure at Kilham led to the distortion of an otherwise strikingly exact figure, and at Tinkinswood, Addington, and Coldrum although proximal and distal ends appear to have varied by between 1 and 2 metres basically rectangular plans were obviously intended.

At all excavated sites of rectangular form except South Street, mound ends were closed by straight terminals. In almost every case these are set at close approximations to a right angle. Were this to have resulted purely from chance a range of angles might be predicted - as at the distal end of several trapezoidal mounds - but this is not the case. The greatest deviation from a 90° angle amongst the measurable sites mentioned above is at Tinkinswood ($c95^\circ$); elsewhere discrepancies are only of the order of 1 - 2 . Even at the trapezoidal mound of Nutbane the facade setting in the form of an open sided rectangle has almost precise 90° corners.

Interest in such right angled layout may initially have arisen in the European background of long house construction, where it is evident in house plans and where it would have been vital if transverse post lines were to provide the necessary combined vertical and lateral strength (Startin 1978).

Its consistent appearance there and amongst British long barrow enclosures presupposes a knowledge of plane geometry - whether right angles were arrived at by trial and error approximations checked by measurement of the diagonals of a parallelogram, or by familiarity with the Pythagorean method of laying out right angled triangles with sides in the ratio 3:4:5 (Atkinson 1961). The latter may seem altogether too fanciful but the former is almost as sophisticated a concept and difficult, if not impossible, to achieve in enclosures laid out around pre-existing central mortuary structures as at Wor Barrow. Measurement of the diagonals of a cursus can anyway be totally discounted! In fact, as will be set out below, cursuses provide evidence that each right angle was laid out separately for which purpose the Pythagorean theorem must have been applied or a large set square employed, presumably initially constructed by such principles.

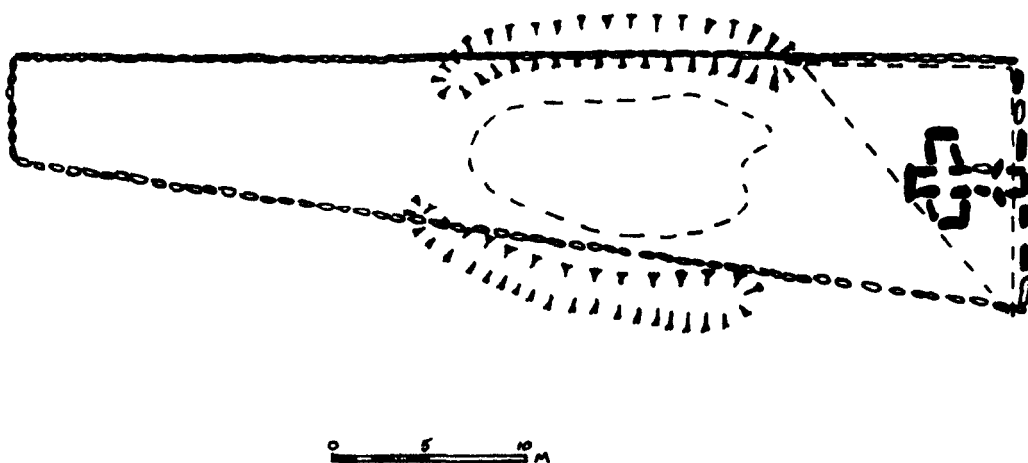
In fact the Nutbane facade may by virtue of its limited size, preserve evidence of layout using 3:4:5 triangles and the single right angled corner at the proximal end of the Wayland's Smith II mound might have been similarly laid out from a point just in front of the earlier Wayland's Smithy I ditch (fig 12.1).

Long barrows then provide some indication of carefully laid out ditches and a considerable body of evidence for a preoccupation with geometric mound definition. They prefigure cursuses by their often parallel sided plans, layout by offsets and convex and squared terminals. They represent the obvious progenitors of the series.

ii Ditch alignment

Whilst many of the features of long barrow layout are evident in cursus plans, the problem of cursus layout was clearly of a quite different order. Straight alignment rarely exceeds 100m amongst long barrows, or 200m with bank barrows, but in the case of cursus ditches it is carried over vast

WAYLAND'S SMITHY



NUTBANE

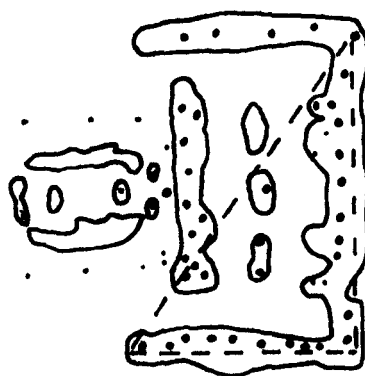


Fig.12.1 POSSIBLE EVIDENCE FOR THE USE OF 3 : 4 : 5
TRIANGLES IN LONG BARROW LAYOUT

distances. To retain two straight, parallel ditch lines for distances of a kilometre or more, as at Aslon, required surveying skills of a high order. Not surprisingly perhaps the precisely aligned sites of the Bi series are situated on flat expanses of river gravel where no topographic obstacles intruded. But accurate alignment is not explicable in these terms alone since the highly irregular Thornborough cursus is laid out across identical terrain. The Bi series appear rather to represent the culmination of surveying skills developed on earlier sites and there carried over from techniques of long barrow construction.

Long barrow mound edges at sites such as Wayland's Smithy II and Kilham are impressively straight and could only have been laid out by sighting along a series of setting out posts. These would necessarily have had to be almost perfectly vertical, a feature noted by Ashbee when excavating the Fussell's Lodge post pipes and which led him to hypothesize that a plumb bob had been used. Such a system might on level ground be extended over a considerable distance, although easily manipulated poles would have to be replaced by sizeable posts to ensure maximum visibility. Single large posts may have been set up as distant sighting points; Case has suggested such a purpose for that within the southern enclosure at North Stoke, although other explanations are possible (see above Chapter 6, A.1). Assuming the digging of the ditch normally proceeded up to and beyond such posts, their holes would be removed as the ditch was opened. A single post hole on a causeway at Dorchester (Atkinson et al 1951, fig 2) may, however, record one that escaped destruction.

Alternatively posts may have been set up and aligned as permanent features either inside or outside the intended ditch line which could then be laid out by measured offsets. The large Scorton post placed outside the ditch, may have served such a dual function as might the putative posts within Holywood B. The convex setting within the squared terminal at Springfield

obviously played no such role in layout though, nor to judge by their close spacing and incomplete nature, did the short setting of posts at Maxey. Such an offset system would only be applicable to more irregularly ditched sites anyway - precise alignment could not be achieved in this way.

The precision of the Bi sites (pl. 3.2) is such that the use of a sighting device of some kind *must* be postulated, perhaps resembling the bay used by Egyptians to fix the rising point of a star. This comprised no more than a straight palm rib with a slender V shaped notch cut in the wider end (Edwards 1961, 258 & fig. 54). Like a cross head on a ranging pole it vastly increased accurate sighting. The development of such an item in second millenium bc Britain might explain the emergence of the Bi cursus series.

In addition to poles and posts pre-existing monuments served as distant sighting points for several cursuses. Gussage and Aston exemplify the variations in the practice. Sighting on the crest sited long barrow at the former was probably largely by eye alone, hence the loss of alignment when the barrow was no longer visible from the bottom of the hill, but at Aston one side ditch was aligned over a distance of at least 1 kilometre on the edge of a now vanished ring ditch mound (pls. 4.2;4.3). Sighting poles were clearly an additional requirement for this purpose and their use attested by the obvious loss of ditch alignment beyond the ring ditch where the mound obscured them.

Rectangular cursuses are characterized not simply by straight alignments but by even ditch lines - a point exemplified by the adjacent cursuses A & B at Holywood. How might this have been achieved? Sectional construction by separate gangs working in approximate alignment would lead to cursuses or extended oblong ditches of the sort surviving at Thornborough, Scorton, and North Stoke. Closer control, probably by means of a continuous rope

linking sighting poles, would have enabled the construction of sites such as Hollywood B but the impressively regular ditches of the Bi series and certain other sites (Fornham All Saints & Dorchester) indicates even firmer control (pls. 4.1;4.3). Even on excavation the ditches of cursuses of this sort are of remarkably consistent width and alignment (Hedges & Buckley 1981, fig 2).

It is unlikely that a large work force working at separate points along a single aligning rope could achieve such uniformity. Ropes defining inner and outer ditch edges must be inferred. These could be secured at regular intervals to sighting poles to avoid major displacement but common sense predicts that they would not long have remained in place beneath the feet of a hundred or more diggers, as witness setting out lines on excavations today! The method might though have been effectively used for deturfing or clearing intended ditch lines in advance of the main work force. Such an explanation would lead to the interesting but perhaps not altogether surprising conclusion that these sites were set out by specialists.

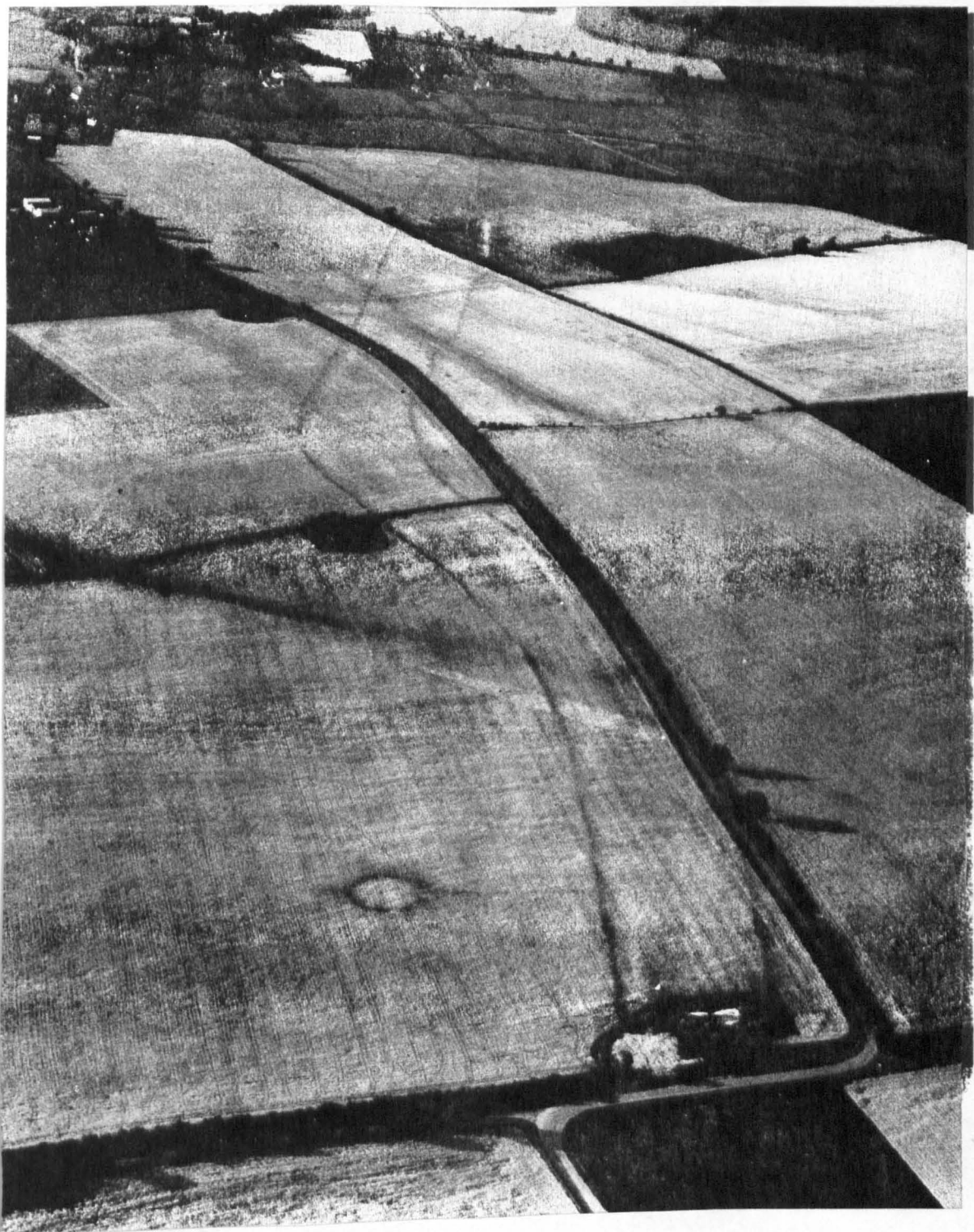
Finally most of the foregoing implies the lack of natural obstacles to clear sighting yet the evidence at Thornborough and Sutton Courtenay/Drayton B points to wooded environments. Were this to have been the case a massive work force would presumably have had to be assembled for initial site clearance. It is difficult thereafter though to conceive of surveying, let alone constructing, a cursus of Bi type in an area peppered by tree stumps and roots, or perhaps worse, the holes left after their removal. The irregularity of the Thornborough ditch lines might be put down to just such a factor but at Dorchester and Sutton Courtenay/Drayton B where similar environments are indicated (see below) ditches are evenly aligned. What is more the irregular North Stoke long mound ditches were cut in open country. It would clearly be simplistic to relate ditch

alignment purely to environmental setting. Sinuous sections corresponding to topographic obstacles along the courses of both the Rudston A and Gussage cursuses confirm that layout by eye alone was common throughout the period of cursus construction.

iii Layout by offsets

Passing reference has already been made to one ditch of a cursus as a "master" ditch. Atkinson first noted the pattern of an evenly laid out ditch opposed by a more irregular one during his survey of the Dorset cursus (1955) and ascribed it to a system of layout by offsets of varying accuracy. The pattern, which is familiar from the layout of long harrow timber enclosures, is exemplified by cursus A Rudston. Here the extreme irregularity of the eastern ditch is in strong contrast to the regular and well aligned western ("master") ditch (pl. 12.1). It recurs in a less pronounced form throughout the cursus series both in major and minor sites (eg Dorchester & Barford); irregular and regular ones (eg Thornborough & Benson); in monuments defined by ditches or by pits (eg Holywood A & Balneaves); and amongst the smaller oblong and extended oblong ditch groups (eg Barnack, Llandegai, North Stoke).

Amongst sites of the Bi series the evidence for the use of such a system is muted, obvious care being taken with this, as with every other aspect of their layout. A slight irregularity at the mid point of one ditch at Benson and the gentle swellings evident at Barford (pl. 4.1) and Stratford St Mary indicate that these sites were indeed laid out by offsets but that different working procedures were employed. That at Benson can only have resulted from an inaccurate junction of work proceeding concurrently from each terminal, whereas the "offset" ditches at Barford and Stratford St Mary would appear to have resulted from continuous but adjusted construction from one terminal to another. Cases of the laying out of master ditches opposite earlier monuments later to be incorporated in the offset line (Dorchester, Pentridge, Springfield) confirms that monument width was



Pl. 12.1 Rudston A : view from the southern terminal.
Note contrasting plans of western 'master' ditch and eastern 'offset' ditch.

not arbitrarily chosen at the extremities but established in advance.

iv Terminal form

The precision of terminal layout varies considerably. A few (particularly Bii type) appear from their random angles to have resulted from the simple linking of side ditches but on the majority of sites terminal plans approximate quite closely to geometric figures and are often the most regular feature. Thornborough exemplifies the pattern: care was obviously taken with its evenly rounded terminal and initial forty or so metres of ditch. Thereafter alignment degenerates (Vatcher 1960, fig 3). Separate terminal construction seems to be indicated, perhaps by specialists in advance of the main work party.

In addition to the planning of a complete terminal with attendant short lengths of ditch, the evidence of the laying out of a single right angle from the end of the master ditch can also be found. Final correction of offset inaccuracies normally led with such a system to the incurving of that ditch to the terminal - the Bili variant. This occurs so widely that alternative explanation could be sought in slavish imitation of a prototype (cf apse plans in basilican and early church architecture) but evidence of opposed attempts at correction in the outcurving of offset ditches at Barnack, Offerton, and Springfield supports the idea of this simpler origin in the mechanics of layout.

Similar incurving of the offset ditch occurs amongst the Ai/Aii series. Here it is set further back (eg Thornborough, Rudston C, Dorchester) and so has escaped classification as a terminal feature. It seems to have originated in the same manner, although here by virtue of attempts to link in a whole section of previously constructed terminal, as at Thornborough, rather than a single transverse ditch. Two sites are noteworthy for the evidence that they preserve of the procedure - Aston

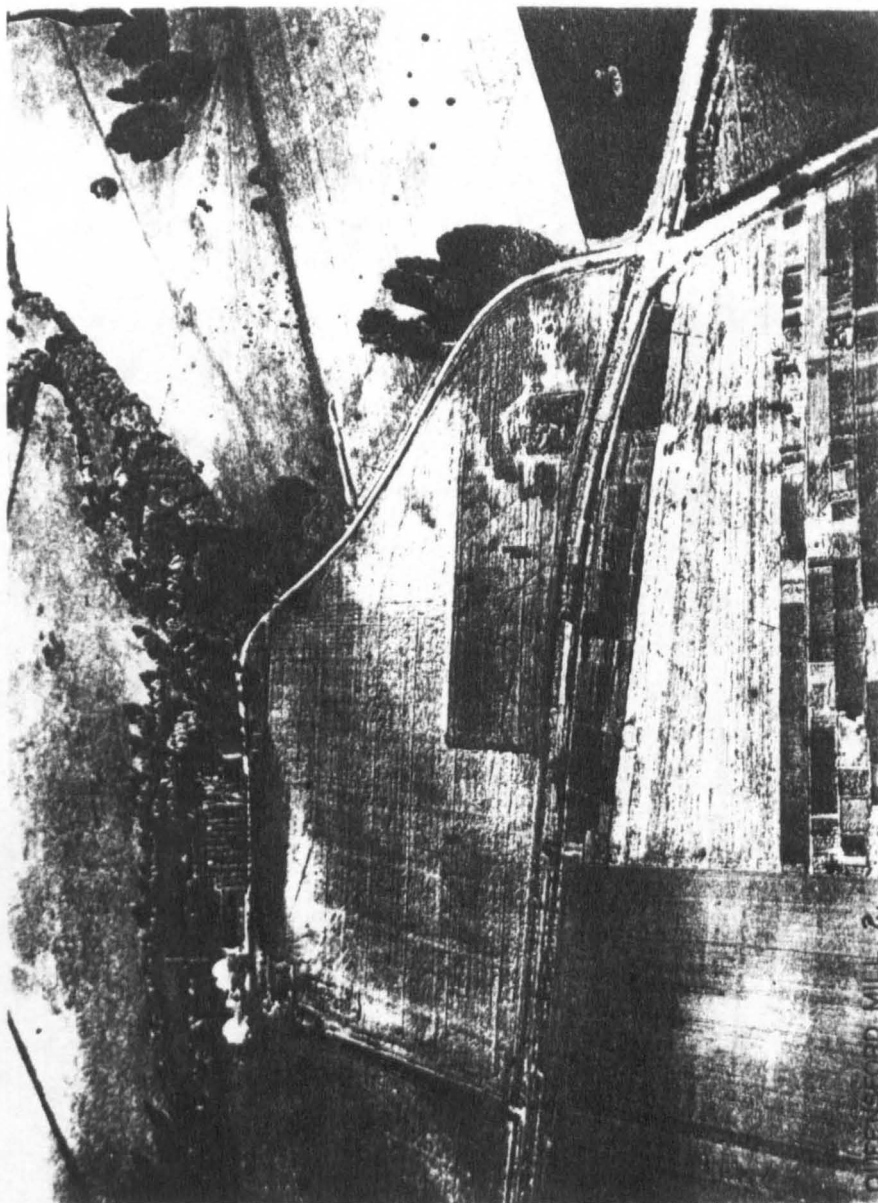
and Dorchester. At the former the mound with incorporated ring ditch obscured siting and resulted in a misalignment of the main side ditch on that laid out as part of the right angled terminal. An irregular length of ditch was added to join the two (pls. 4.2/4.3). No such attempt was made at Dorchester to join the main cursus ditch and separately constructed terminal. There the two uniquely run parallel to one another, although a characteristic incurve occurs along the line of the offset ditch (pl. 12.2).

This terminal arrangement has been explained instead in terms of the extension of the site from a minor cursus type enclosure (Atkinson pers. comm. and unpublished plan) for which recent work at Winterbourne Stoke (Richards pers. comm.) provides a not too distant parallel. Nevertheless the evidence of form and date (C.U.C.: CD 11-13; Chambers 1983) distances the causewayed rectilinear ditch forming the apparent western end of the enclosure from the evenly rounded SE terminal. Sadly no photographs record the full picture and only two exist of the principal section of the terminal prior ^{to} destruction (Allen: Queensford Mill 1 & 2, Ashmolean Museum).

Separate layout and construction of a complete section of terminal may also account for the characteristic offset causeways of the cursus series. That at Aston occurs at the junction of the attached terminal ditch and the linking section, and at Thornborough it appears to be similarly placed where the ditch line turns inward.

B. ORIENTATION

Since these sites were apparently the subject of elaborate initial planning - at least those of the BI series - the question of purpose must arise. Were the builders refining the techniques of alignment and geometric construction for purely esoteric or ritualized reasons or



Pl. 12.2 Dorchester : one of
only two photographs
recording the original
form of the south
eastern terminal,
taken by Major Allen
2.7.1933.

was alignment directed towards landscape or skyline features? Elongated sites of this kind obviously lend themselves to alignment on such objects and might if constructed for maximum visual impact as corridors in woodland provide a more dramatic context for the purpose than either stone rows or long barrows. Sample size is of course very small so no certain conclusions can be drawn regarding orientation trends, particularly after subdivision into area or type groupings. Nonetheless only in this way will potential patterns become evident.

i Orientations patterning: area, size, or type?

The tendency for cursuses to cluster in certain areas provides an obvious initial basis for assessment.

Seven area groupings suggest themselves: Strathmore, Northern England, Trent, Avon, East Anglia (including the Great Ouse valley and the western Fen Edge), Thames, and Wessex. The Northern English and East Anglian groups are the most diffuse but difficult to break down without total fragmentation. Orientation trends for cursuses in these areas are set out in fig. 12.2a. The Avon, Trent, and Wessex areas appear to have possessed the tightest cluster of commonly orientated sites but a general interest in NW/SE orientation is evident in East Anglia, NE/SW orientation in Strathmore, and N/S orientation in Northern England (if the Holywood sites at Dumfries are included). Interestingly the Thames valley sites are widely spread. This is perhaps not surprising in view of the striking resemblance of the Dorchester cursus to that at Maxey, and of Lechlade, Drayton St Leonard, and Benson to the Avon valley sites. As with henges (Burl 1969) the Thames valley appears to have acted as an interface between various regional groups.

Since the alignment of Avon valley cursus sites coincide generally with oblong ditch/long barrows in the area, as is also the case in East

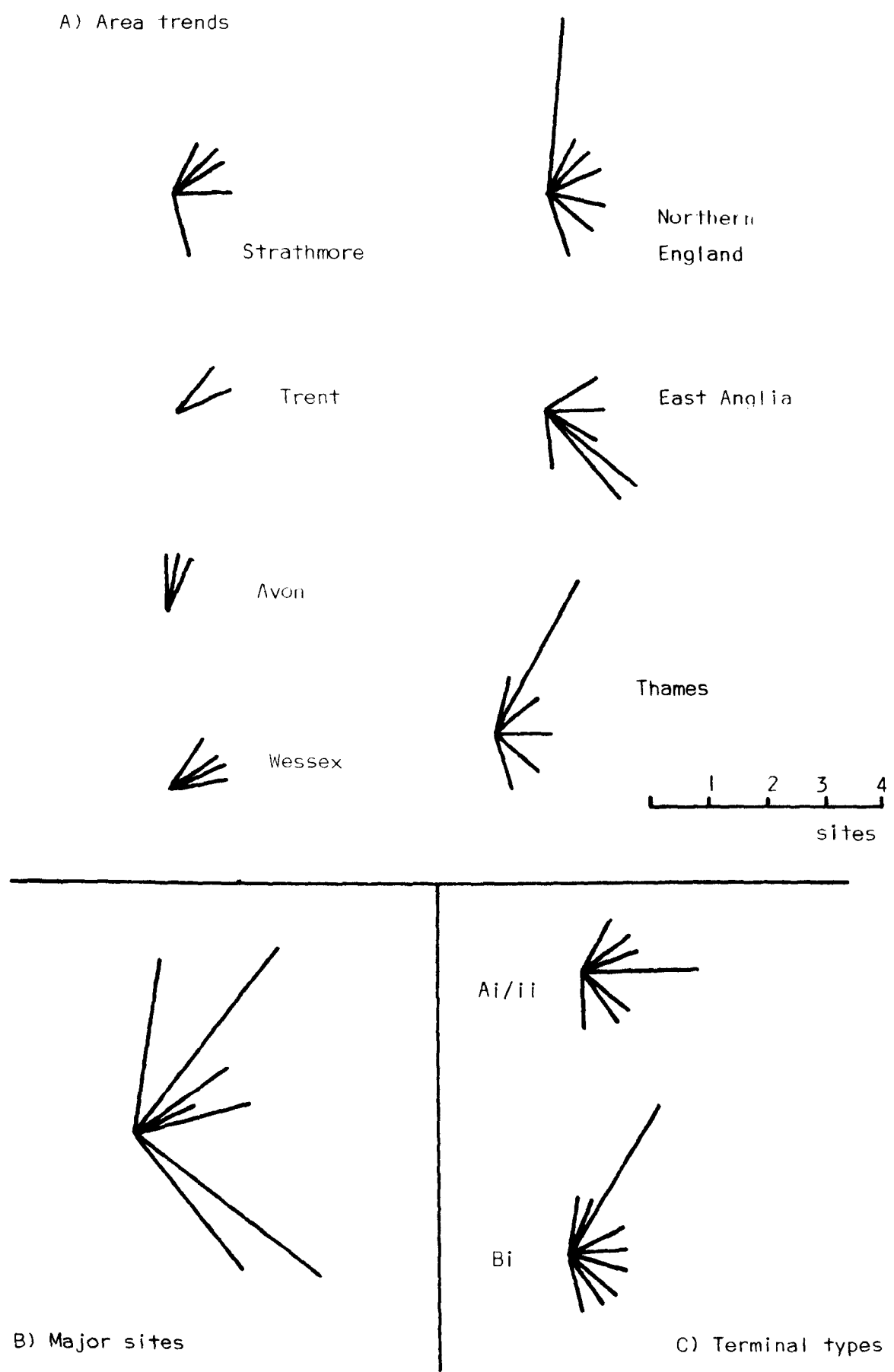
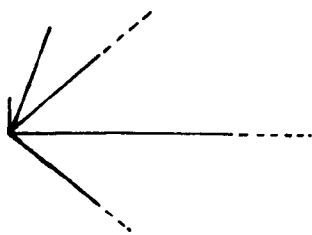
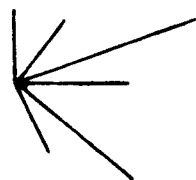


Fig.12.2 CURSUS ORIENTATION

1) EASTERN ENGLAND (elongated ditches & long barrows separately grouped)



a) elongated ditches



b) long barrows
(East Anglian, Chilterns & Lincs groups: Ashbee 1970)



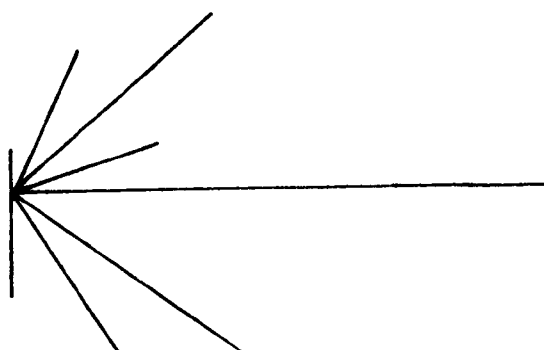
2) AVON VALLEY



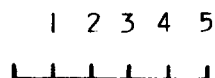
3) THAMES VALLEY & PERIPHERIES



4) TRENT VALLEY

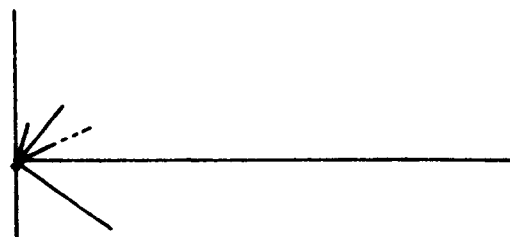


5) WESSEX
(Salisbury Plain East
& Cranbourne Chase groups:
Ashbee 1970)



sites

(dashed line represents
bank barrow or extended
oblong ditch)



6) NORTHERN ENGLAND (Yorkshire & Northern groups : Ashbee 1970)

Fig 12.3 ELONGATED DITCH AND LONG BARROW ORIENTATION
TRENDS IN CURSUS REGIONS (see fig 12.2)

Anglia, these can perhaps be regarded as formative areas. Conversely the contrast between the NE/SW aligned cursuses in the Thames valley and the local trend of oblong ditches/long barrows argues for a dislocation in this area, as is also the case farther north and south.

The range of orientations evident in the components of many cursus complexes might seem to argue against the validity of such area trends. Yet at three of these sites (Gussage/Pentridge; Sutton Courtenay/Drayton A and B; ?Maxey SE and NW) the second cursus extends the general orientation of the first, and at Amesbury/Winterbourne Stoke and Rudston pairs of cursuses run almost parallel to each other. Even at Hollywood, cursuses A and B share a nominal N-s alignment. Differences undeniably exist though.

Since in the Thames valley it is Dorchester that stands in principal opposition to the regional trend the possibility arises that it is major sites that should be separately grouped. Fig. 12.2b reveals, however, that they box the compass. Terminal form, in which particular Dorchester differs most markedly from other sites in the Thames valley, presents a further possibility. Fig. 12.2c sets out the differing orientations of A1/A11 and B1 sites. These have been selected since they have produced the clearest evidence of chronological separation, and the B11/B111 variants omitted since they would weight the B grouping too heavily. Again no obvious pattern can be discerned beyond a general tendency towards E-W orientation amongst the convex terminalled group and towards NE/SW orientation amongst the rectangular group.

Area orientation patterns then appear to provide the best approach and within these differences of terminal type are significant. In the Thames valley, Dorchester alone possesses a convex terminal and is orientated in virtual isolation, whilst in East Anglia, Springfield is

similarly rather unusual in both terminal form and orientation. The only other Bi site in Essex - Stratford St Mary - is so strikingly like Cardington E in proportion, gently curving outline and orientation that a common architect might be hypothesized.

The clearest example of comparable orientation amongst sites of identical architectural form is to be found in the Thames valley: Benson, Sutton Courtenay/Drayton A and Drayton St Leonard are separated by only 14km (9miles) and differ in orientation by no more than 5° . This is all the more striking in view of the presence amongst them of the quite different Dorchester site, orientated some 100° further south. Although apparently out of place in the Thames valley the Dorchester cursus is aligned within about 2° of the comparable site at Maxey and some $4 - 16^{\circ}$ of the principal alignments of the not too dissimilar Fornham All Saints cursus.

Since the incredibly similar orientation of three rectangular Bi cursuses within so short a distance can hardly be the result of chance nor of alignment on a common landscape/skyline point (their projected alignments would converge in the vicinity of Bournemouth!), the conclusion that this relates to a celestial feature seems inescapable.

ii Astronomical alignment

An immediate problem that arises in attempting to assess the potential astronomical alignment of a cursus is the absence of recognizable features on the ground from which bearings might be taken and azimuths computed. Plots of crop marks even when carefully measured in on ordnance survey maps are by no means sufficiently precise for astronomical purposes. Nevertheless as no other approach is available, except along parts of the Amesbury, Gussage and Pentridge sites, this must suffice. Alignments have therefore been based on map plots and taken from grid north, which in most cases differs by only a few minutes of arc from true north and

is therefore well within the range of error necessarily accepted here. Given the low lying location of almost all cursuses horizons have been assumed to be level; valley sides may on occasions be relatively steep but are rarely close enough to significantly affect the declination under consideration. Most figures can only be considered to be correct to within 4° or 5° then but provide an indication of potential solar, lunar, or celestial alignments. Those which appear significant have been carefully rechecked to establish their relative accuracy. Details are given in the gazeteer (appendix I).

Interestingly the three commonly aligned Thames valley sites (27° , 29° , & 30°) lay beyond the northern extremity of maximum midwinter moonrise - at this latitude 38° for c2,000bc (Penny and Wood 1973, table 3). This northerly point is itself only achieved once in every cycle of 18.61 years, moonrise position for much of the time lying some 10° further south. Perhaps significantly the other BI site in the Upper Thames valley at Lechlade has an azimuth that similarly lies too far north to coincide with moonrise extremes - in this case 20° west of north on an azimuth of 160° . Even with due allowance for a wide margin of error these Thames valley cursuses lie well beyond moonrise events.

Nor is this situation unique. The virtually identical but smaller sites of the Warwickshire Avon have similar azimuths (5° - 20°), yet further from significant lunar declinations. If celestial alignment is to be accepted, and the three Thames valley sites appear to offer no feasible alternative, the foci must be stellar. Alignment on the rising point of Capella c1550bc has been claimed for the King's Stone at Great Rollright located midway between the cursuses of these two valleys and on a similar azimuth (Thom 1967, 100). The date is late for such a site, however, and stars themselves feeble objects to observe on the horizon - difficult to effectively use posts or stones to sight on when there is no moon and

invisible when there is (Hawkins 1973, 246). If constructed as a cleared corridor in woodland of course the contrast would have been greater and the star rendered considerably more visible, but the environmental evidence is inconclusive, and the post settings required for such a purpose, missing. Those so far located appear to have been no more than embellishments to the edges of the monuments.

Need the alignment of such sites though have coincided with the rising point of a star? That prehistoric man observed the heavens at least to the extent of noting the form and movement of such obvious features as the belt of Orion, the Pleiades or Sirius need not be seriously doubted (Thorpe 1981) - the coastal placing of axe factories and "redistribution centres" implies long distance navigation for which a knowledge of the stars would have been vital. Such knowledge is unlikely to have been esoteric, however. Heavenly bodies were undoubtedly named, ascribed special powers and made the object of evocative tales. Cursus alignment in such a context is likely to have been designed less to facilitate meticulous observation of a star's rising point than to have ensured its dramatic appearance over these monuments at the time of concomitant festivals or activities. Successful timing of such events by shaman or priest might ensure that the "god" appeared to visit both enclosure and expectant crowd as did Apollo the circular temple of the elusive Hyperboreans. For the archaeologist the search for the significant stellar body, if such were the nature of the alignment, would be doomed to failure - at what time of year might such a festival be held, at what height might the star be above the horizon, and which of the large number covered by the broad expanse of a cursus should be considered significant?

Lunar events are more common, however, both as the apparent focus of groups of Neolithic funerary monuments and as the calendrical basis of later Celtic festivals (Burl 1981). Perhaps these BI cursuses were in

fact deliberately aligned beyond the reach of sun and moon towards the ever dark land of the dead. Or perhaps we have here simply an expression of the inherent conservatism of Neolithic society. The earlier linear monuments of the Thames and Avon valleys, the North Stoke bank barrow, and the mounded oblong ditch at Charlecote were aligned north-south (approximate azimuths 10° and 5° respectively); in the former case probably to enable it to run parallel to the river and river terrace. Continued interest in them is attested by the aligned round barrows at Charlecote and the dense nucleated cemetery at North Stoke. Later expressions of the same funerary tradition may then have replicated the stellar foci obvious during annual ceremonies at these sites, whether or not they had been of key significance in the first instance.

The question is almost certainly beyond resolution but it is undoubtedly the case that a significant number of cursuses are aligned *nominally* north-south (ie Hasting Hill; Rudston A and D; Holywood A and B) when, as in the Thames valley, no obvious topographic obstacles prevented realignment.

Reference has already been made to the general coincidence in form and alignment of the Dorchester, Maxey, and Fornham All Saints sites. Their NW/SE orientations are suggestive of interest in midwinter sunrise. Dorchester is close - an azimuth of 129° as against that of 131° for accurate alignment at its latitude c2000bc. Maxey NW lies rather too far south, however, (126° as against 133°) and the SE arm at 115° is even further removed, to be beyond even the adjacent lunar standstill arc. Fornham despite its multiple alignments achieves a significant solar orientation only along its shortest and most obviously linking section. Further afield Scorton possesses an azimuth of 132° at a latitude where one of 134° is necessary for alignment on midwinter sunrise and likewise at Thornborough the apparent orientation of the final section of the

cursus towards midwinter sunset is inaccurate by 7° . In part these discrepancies may relate to the inexact nature of the measurements made here but their tendency to miss by a few degrees the significant solar declinations suggests a further possibility - that they were inexactly aligned on lunar maxima. Precise alignment on major and minor lunar extreme standstill declinations are not found, except perhaps at Aston, but general orientation towards the full arcs of lunar rising and setting positions could explain the azimuths of the Scorton, Thornborough, Dorchester, Maxey NE, Balneaves, Inchbare A, Holywood B, and the main SE arm of the Fornham cursus. Interestingly the almost identical Cardington and Stratford St Mary sites differ in orientation by some 10° and both lie within the arc of maximum-minimum midsummer moonrise, or if reversed, midwinter moonset. If in fact deliberate these general orientations, like those postulated for stars, were probably linked to visual display as the keynote of annual ceremonies. In such an emotionally charged atmosphere the impact of the great orb of the moon shining along the cleared 'road' of a cursus would be dramatic, particularly if the monument were backed by woodland. If instead abstruse calculation was intended these monuments were woefully misaligned.

A detailed case has been set out for the alignment of the Gussage cursus on the setting of the midwinter sun beside the Gussage St Michael III long barrow when viewed from the Wyke Down terminal (Penny and Wood 1973). This only works for half of the cursus, however. A reversed orientation on midsummer sunrise from the Thickthorn terminal is not possible. In addition the authors' attempts to integrate the Pentridge cursus into the astronomical scheme makes a nonsense of the structure itself - no alignment being contained within its ditches - and in view of the linked nature of the two sites calls into question the conclusions reached for the Gussage site. Nor is it possible to regard this latter cursus as a refinement of the imprecise orientation of the Pentridge monument since

the Gussage cursus is clearly the earlier. Purely fortuitous orientation resulting from an attempt to incorporate the maximum number of long barrows seems more probable.

Approximate equinoxial lines also exist - Amesbury, Rudston C, and Maryton - but so many other orientations are to be found that the temptation to seek order where none exists must be resisted.

Cursuses then were certainly not precise instruments for observing the heavens although general lunar, solar, or stellar alignments may have determined their planning. Geometric elegance, expressions of gigantism, and perhaps visual impact were the principal concerns of their builders. Heavenly observations within cursus confines were probably directed towards "capturing" rather than measuring the great orbs of the moon or sun, or the brilliance of a star, for precisely the same extravagant religious motives that inspired the builders of Maes Howe and New Grange.

CHAPTER XIII

THE SOCIAL DIMENSION

Thus far cursuses and oblong ditches have been examined in isolation from their physical and social environment although like all ritual monuments their principal value lies in the potential to illuminate the societies that constructed them. Clearly such simple, open monuments are of more limited value for the purpose than say chambered tombs, but their size alone has major implications for the strength of the economic and social subsystems of Later Neolithic/Early Bronze Age Britain.

Environmental and social considerations are in fact with cursuses almost uniquely combined since patterns both of land use and land holding inevitably determined the areas made available for their construction which, given their size, must be assumed to relate to putative tribal territories.

A. LOCATION

i Topography

Cursus siting is remarkably consistent. In virtually every case the locations chosen are either a chalkland valley or a flat expanse of river terrace gravel. There are a few exceptions: the site at Kinalty stands on rather higher ground than the other cursuses/extended oblong ditches of Strathmore; Winterbourne Stoke is contained on the chalk top and Offerton (Hastings Hill) on similar terrain; Llandegai lies on a gravel terrace overlooking the Menai Straits rather than a river; and several oblong ditch sites in Norfolk are located on glacial rather than river terrace gravels.

These few exceptions do little real violence to the overall pattern which must be considered positive, and not simply the negative product of

unresponsive soils elsewhere. On the chalklands cursuses were laid out across or alongside valleys despite the topographic potential to sight them along ridges or across flat expanses of downland, and in the river valleys sites are rarely placed at the outer (upper) extremity of terrace deposits. They lie in fact, along with ring ditches, on first or second terraces overlooking the present flood plain. A few are placed lower still on land partially subject to seasonal inundation - Sutton Courtenay/Drayton B; Aston, Findern, the north western extremity of Maxey and the Fengate enclosure - but the stratification of soils on these sites demonstrates that the associated alluvium resulted from later, non prehistoric flooding, or that the sites lay on gravel islands above water level. (Oxfordshire Arch Unit - newsletter Dec 1981; Reaney 1968; Mahany 1969.)

It is noteworthy that a significant number of major cursuses were sited on the flat expanses of gravel created at river confluences or by meandering streams (eg Aston, Dorchester, Maxey). Such localities were also favoured for the siting of henges and ring ditch cemeteries (cf Cardington, Stanton Harcourt). Whether concentrated in such areas or more dispersed, these monuments all appear to have occupied the same terrain - overlooking the seasonally available grassland of the flood plain.

Flint scatters in the Great Ouse valley indicate that habitation sites were on higher terraces (Woodward 1973) and this might sensibly be concluded for the Thames valley given the frequently dense and almost exclusive concentration of ritual/sepulchral monuments on the Radley/Summertown terrace (Riley 1944, fig 27; Case 1956, fig 6). Case has, however, suggested from the evidence of scattered domestic pits amongst ring ditch cemeteries that settlements and burial sites were juxtaposed (Case 1982 C, III) and that certain ring ditches and ritual monuments may initially have been of domestic purpose (Case 1963, 48-51). Cursus construction in the same locality makes this unlikely since they were not simply wasteful of

the substantial acreages enclosed by their ditches but by virtue of their extreme lengths would have severely dislocated land holding and farming activity over a large area. It is perhaps better therefore to regard the "domestic" pits as the product of transient activity related to the monuments themselves or associated with the seasonal use of the adjacent flood plain.

ii Relationship to rivers

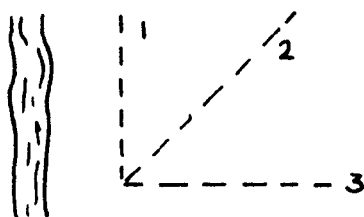
The proximity of cursuses to rivers, and the alignment of a number directly towards water, has encouraged the notion that this indicates direct ritual interest.

Such an hypothesis arose largely from early concentration upon the cross valley characteristic of the better known chalkland sites (which transect rather than lead to the downland streams) and upon the north western extremity of the Maxey cursus, almost certainly truncated by movement of the meandering river bed. It was given added force by the mistaken identification of the fording points of Roman roads at Dorchester Overy and Ufton Nervet (RCHM 1960).

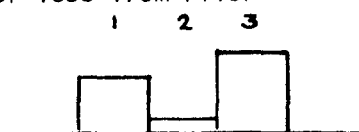
With a larger sample of sites now available it is possible to produce a statistically more reliable assessment of the pattern. It would be absurd, however, to weight all cursuses equally irrespective of their distance from the nearest river since sites such as Lechlade and Maxey are comparably aligned yet differ by up to a kilometre.

Three distance zones have therefore been proposed: 1) under 200 metres; 2) 200-500 metres; 3) 500-1000 metres. The first represents a simple subdivision of an arbitrary 500 metre zone to isolate those sites most closely related to water sources.

Each site has also been categorized according to its alignment towards the



A) 200m or less from river



B) 200m - 500m



C) 500m - 1000m



D) Totals

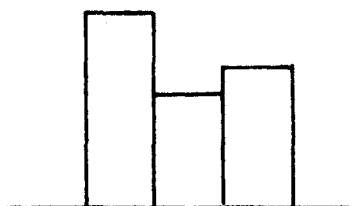


Fig.13.1 CURSUS ALIGNMENT RELATIVE TO NEAREST RIVER

nearest river: a) parallel; b) angled; c) right angled. Meandering water courses inevitably complicate the picture so classification has been based upon the linear projection of the cursus line to its point of contact with the river. In the case of those sites placed near two rivers (eg Dorchester), the nearest river has been used for classification purposes.

Results set out in figure 13.1 show that a small majority of sites lying less than 200m from rivers are in fact aligned directly towards them. All are major cursuses - Rudston A, B, and C, Gussage, and Maxey - and with the exception of the latter ?truncated site, all lie on chalk downland. The pattern then arises almost exclusively from cross valley layout. Virtual absence of the pattern in the river valleys cannot be explained simply in terms of the greater width of the rivers and the narrowness of the flanking terrace deposits since most sites lying between 500-1000m from water might equally be accommodated at right angles.

Parallel alignment becomes steadily commoner as the distance from water increases and cumulatively it dominates. An explanation for the pattern, however, probably has less to do with the demands of ritual than the constraints of land use - flood plain, first, second, and third terraces and impermeable soils beyond were almost certainly utilized for quite distinct agricultural purposes (meadow, pasture, arable, pannage?) which cursuses could not easily cut through. Alignment in fact correlates most closely with that of the underlying terrace, and distance from the river with the width of the flood plain. Major cursuses could be laid out with less regard on the broad stretches of gravel at river confluences.

Were cursuses then a feature of open grassland as were those of Wessex when first viewed by Stukeley and Colt Hoare?

B. ENVIRONMENT

Cursus location, adjacent to the flood plain in areas that later proved attractive for henge and ring ditch construction, appears to point to an open environment. There is historical evidence in the Thames Valley for communal grazing of the flood plain and the very limited environmental evidence supports the picture of similar land use in the earlier 2nd millenium bc (Case 1982c, 111-12). In addition the fact that cursuses today are monuments of open country predisposes us to accept a grassland milieu.

Thomas, however, found clear evidence of contrasting environments from the ditch fill of the cursus and henge at Thornborough and the same dichotomy has been noted at Dorchester, Maxey, and apparently Sutton Courtenay (Thomas 1955; Pryor 1983 & pers comm; Leeds 1934). It may be wrong therefore to assume that henges and ring ditches were laid out in identical environments to cursuses just because they are juxtaposed as cropmarks.

i Environmental evidence from cursus ditches

Foremost amongst published evidence remains Cornwall's analysis of the ditch silts at Thornborough (Cornwall 1953; 1955). Differences here he related to distinct climatic phases, but recent publication of a period of prolonged observation of the resilting of the North Stoke linear ditches points to the possibility that certain humic soils resulted from the micro habitat of the ditch rather than wider climatic change.

At Thornborough the principal cursus ditch section cut by Thomas (section v)- at a point where it had been protected by the henge bank - revealed two distinct areas of dark humic material: in the primary silts and as a buried soil line both overlying the filled ditch and running out on either side across the undisturbed old land surface. These two deposits were shown by chemical analysis to be of identical origin - the dark colouring resulting

from the presence of large quantities of organic material (Cornwall 1955). Particle size analysis emphasized the differing composition of cursus and henge ditch deposits and the likely wind blown nature of the latter (Cornwall 1953). Further samples taken from the cursus line six years after the initial work were subjected to microscopic analysis which confirmed the humic nature of both upper and lower deposits (Cornwall 1960).

The relative richness of this material in humus and its good crumb structure pointed to its formation from leaf mould and forest litter initially accumulated in the ditch hollows (primary silt) and later forming a buried forest soil stretching across the fully silted ditch. Not all sections produced evidence of these two layers but this probably relates to the erosion of the upper "buried soil" layer everywhere except under the henge bank and at the quarry edge, where a plough headland may have afforded later protection. The absence of the lower layer at one point is probably explicable in terms of restricted backfilling to create an additional causeway, opposed to one in the northern ditch (Vatcher 1960, 178).

Evidence of wind sorting in the loam overlying this soil corresponded closely to the early filling of the henge ditch and was attributed to the Sub Boreal climatic phase. On this basis a date during the latter part of the Atlantic phase was postulated for the cursus ditch deposits. Whilst it may be dangerous to link soil structure too readily to climatic change rather than purely local disturbance of the natural tree cover, or agriculture and overgrazing (Evans 1975, 144), the dates suggested do not differ from those arrived at by other means.

But is it safe to conclude that the humic layers in the Thornborough ditch represent anything more than the product of the micro habitat of an overgrown ditch? A comparable humic layer (layer 3: Case 1982a) formed a consistent feature of the tertiary silting of the North Stoke linear

ditches and could be demonstrated to result from the colonization of the ditch after the completion of the rapid primary and secondary silting phases. Ten years after excavation the still open ditch had resulted to this point again and supported thick grassy vegetation; sixteen years later trees and shrubs were growing in it and formed an almost complete canopy. At this stage a layer of leaf mould 0.2m deep had been produced (Case 1982a, 73-4), the process being apparently unaffected by the presence of an immediately adjacent field in continuous cultivation.

Unlike the North Stoke linear ditches though the dark humic layer at Thornborough occurred in the primary silts. Their shallower profiles would certainly have inhibited the early collapse evident at North Stoke but some primary runs of gravel should be evident if the layer did in fact represent plant colonization of the stable ditch. Alternatively the material could represent collapse from a considerable depth of overlying subsoil loam but in this case brown earth of typical forest derivation would be predicted rather than such dark, uniformly humic material. Forest litter does in fact furnish the best explanation. That it was not simply the product of the micro habitat of the ditch is confirmed by the identical upper layer which overrides both ditch and bank (Vatcher 1960, fig 4, J1).

The Thornborough cursus was then sited in a woodland clearing, it seems, which became overgrown when the ditches had become totally filled. Other cursuses have produced evidence of possible humic layers resembling those at Thornborough and North Stoke which may provide further indications of the normal environment of such monuments.

Thomas records a similar contrast in the ditch fill of the cursus and henge at Dorchester (1955, 4). Lack of publication prevents more than speculation but analysis of samples of "typical dark fill" from the pits and ditches of sites I & II revealed the presence of humus in only minute quantities; the

dark colouring was considered to derive from finely comminuted charcoal. There was, however, no evidence of surviving charcoal in the samples nor chemical indications of wood ash (Zeuner 1951). Deliberate ritual admixture was invoked to explain the presence of such a fine darkening agent. Whilst possible on sites I & II, if the deposit in the cursus ditch was of identical type the explanation is rendered highly improbable - ritual filling of an enormous length of cursus ditch with prepared, or coincidentally mixed, pyre sweepings must be seriously questioned as a feasible proposition.

Contrasting ditch fill has been noted again at the Maxey cursus and henge: the former was completely filled with a very dark brown/black sandy loam whereas the henge contained almost pure gravel (G Simpson pers comm; P Pryor pers comm). This is, however, susceptible to simpler explanation than changing environmental or climatic conditions. As the broad cursus ditch barely grazed the gravel subsoil (c 0.4m) it can only have silted from the overlying subsoil loam and top soil, whilst the henge ditch contained dumped material - presumably the former external bank - and so does not display a normal silting pattern.

Leeds drew attention to the absence from the cursus at Sutton Courtenay of the red/brown loam that characterized the Bronze Age ditches elsewhere on the site (1934). Unfortunately he does not record the nature of the cursus ditch fill so the extent of contrast cannot be gauged, and recognition that the locally familiar red/brown sandy material represents patchy subsoil loam deriving from the original capping of the gravels rather than a wind blown deposit reduces the importance of the distinction.

Recent work on the eastern ditch of the lower lying Sutton Courtenay/Drayton B cursus, which may yet prove to have been linked to Leeds's site on the higher Radley-Summertown terrace, has revealed a rich waterlogged

organic deposit. This lay on the ditch bottom and comprised chiefly twigs and hazelnut fragments (Ox Arch Unit Newsletter Dec 1981). Although restricted in extent to the ditch silts (it is not evident in the preserved old land surface on either side) it is difficult to accept from its primary position that it is a product of plant colonization. Nor to judge from the enormous length of ditch is it likely to have been a deliberate deposit. An origin similar to that of the primary layer at Thornborough seems indicated, particularly as hazel and alder represent the natural vegetation on such low lying terraces.

The fill of the cursus ditches at Aston, Rudston, and in some measure Amesbury, suggests that they may have silted up largely from rich brown earth soils: a section cut through the Aston ditch (Reaney 1968, 5) revealed a uniform fill of light brown almost stoneless material overlying a primary layer of larger stones; the cursuses ditches near the Wold tops at Rudston proved to be virtually chalk free (Dymond 1966; Kinnes pers comm); and Stone's, although not Christie's, sections across the Amesbury ditch revealed a similar picture (Stone 1948, 12-14; Christie 1963, 370-2). It is tempting to relate this to the presence of woodland within which these soils would remain sufficiently mobile to ensure their dominance of the silting pattern. Alternatively it may simply reflect their former depth above the chalk or gravel subsoil, prior to total erosion by more intensive agriculture.

Tree holes, apparently both ante and post dating Grooved Ware settlement features at Down Farm, Gussage confirm the existence of at least pockets of woodland near a cursus and evenly scattered charcoal fragments noted in the Scorton, Aston and Maxey ditches (Topping 1982; Reaney 1968; G Simpson pers comm) are better explained as deriving from soils associated with clearance (?for monument construction) than as importations for unknown ritual activities. It is perhaps significant that analysis of those charcoal fragments found amongst the dark material on sites I & II,

Dorchester indicated a tree flora natural to the second terrace location of the monuments - oak, willow, holly, hazel, and perhaps poplar (Zenner 1951).

If bank barrow can be considered cognate the environmental evidence gained from sampling of the buried land surfaces beneath their mounds provides useful corroboratory evidence, particularly as it cannot relate simply to the overgrown and shaded condition of a ditch. Pollen analysis of the buried soil beneath the bank at Great Ayton Moor revealed a mixed oak spectrum, similar to that below the chambered cairn but differing markedly from that below the attached Bronze Age ring cairn where non arboreal pollen was dominant (Dimbleby 1967). The buried soil underlying the Winterbourne St Martin bank barrow (Maiden Castle) was also found to be a 'natural weathering soil formed under a cover of woody vegetation' (Wheeler 1943, 20).

The evidence is by no means conclusive, nor even wholly consistent - humic tertiary layers at Lechlade and Barford (unpublished notes & drawings) indicate a situation akin to North Stoke, and at Findern, Aston, and perhaps Maxey, flooding may have played a role in the silting process (Wheeler 1970, 7; Reaney 1968; G Simpson pers comm - bands of concreted manganese perhaps resulting from the leaching of iron in waterlogged conditions.) The probability that these monuments were laid out in an environment unlike that of later henges seems strong, however.

If a woodland or scrub rather than grassland setting is entertained though the question inevitably arises of its nature - untouched primary woodland or regenerated growth covering abandoned clearings?

Comparatively late dates for clearance in the river valleys of Wessex (2653 ± 60 bc BM 560 Marden; probably circa 2450 ± 150 bc NPL 191 Durrington Walls) would accord with the inception of the cursus tradition, but the downlands there provided plentiful alternative permeable soil for agriculture unlike the more limited gravel terraces of Midland/East Anglian

river systems. Available dates for causewayed enclosures and the comparatively even distribution of Earlier Neolithic ceramics and characteristic flints in valleys such as the Thames (Case and Whittle 1982) would indicate early clearance and exploitation. Molluscan species from the Abingdon enclosure include *Helicella itala* which is intolerant of shade (Cain 1982) and collectively the fauna indicates an environment there of open, well drained grassland with no bushes. This can be coupled with the evidence of plant impressions on pottery (Murphy 1982) which reveal a dominance of cereals and the representation of woodland food plants by just four impressions of apple and one of sloe.

By contrast woodland species dominate samples from later contexts: in the Grooved ware pits at Dorchester and Barton Court Farm, Abingdon hazelnuts vastly outnumbered poorly represented cereals (Jones 1980), and they were abundant in the waterlogged cursus ditch deposit of Sutton Courtenay/Drayton B. Coupled with faunal and artefactual evidence for the exploitation of woodland resources in the Later Neolithic (Wainwright & Longworth 1971; Evans 1975, 122) and for the abandonment of clearings (Bradley 1977; 1978, 105-7), the ideal context is provided for the construction of massive monument in wooded environments. Following the possibly disastrous collapse of the mid 3rd millennium land would not have been at a premium and scrub grown fields or former clearings might more easily have been allotted to ritual use.

Re-establishment of open grassland is evident just prior to henge and round barrow construction in Wessex (Evans 1979) and open terrain is similarly indicated by the sparser evidence from the gravels (*Helicella itala* from pits amongst the ring ditch cemeteries at Cassington and Stanton Harcourt containing respectively Grooved ware and collared urn sherds: Case 1982b, 128; 1982c, 110).

Too much may of course be read into purely local changes in the pattern of land use and cursus ditch deposits can neither confirm nor refute the picture, registering as they do only the environmental conditions in the area of their ditch at and after the date of construction. Examination of buried land surfaces is required to provide a fuller history of land use but given the almost universal destruction of cursus banks these are excessively rare. That preserved below alluvium at Sutton Courtenay/Drayton will provide valuable evidence, as would examination of that below the surviving bank of the Gussage cursus. Elsewhere protected localities need to be sought and investigated as a matter of priority.

In the absence of this evidence, that from associated monuments may provide an indirect approach to the problem.

ii Environmental evidence from associated monuments and features

Round barrows constructed within cursus confines are obvious candidates for attention but on the plough eroded river gravels only two have survived as upstanding mounds: Maxey and Aston I.

Analysis of the buried soil beneath the former is not yet complete (Pryor pers comm) and the latter was poorly reported (Reaney 1968). Carbonized grain dated $2750 \pm 150\text{bc}$ (BM 271) was found in features dug into the old land surface at Aston and hazel nut fragments amongst the earth core of the barrow which can be presumed to have derived from the immediate vicinity. Whether these were linked, or the hazel nuts indicative of later, changed environmental conditions cannot be ascertained in the absence of full analysis of the soil horizon. Locally turves forming the central stack of Swarkestone II were laid on an old land surface formed in an environment of clearances in deciduous woodland. The same may have been true of Aston I but Swarkestone II was located on a higher terrace (Posnansky, 1956).

Ditch deposits from neighbouring monuments on gravel soils do little to clarify the picture: there is little to differentiate Dorchester site IV from sites V and VI despite the fact that they appear to bracket cursus construction, and the red brown loam evident in the Bronze Age ditches at Sutton Courtenay may relate simply to very localized pockets of this former capping of the subsoil. The pits containing a few grains of wheat and barley (11) but a massive number of hazel nut fragments (425) just one kilometre north of the Dorchester cursus (Jones 1980) were shown by the presence of Grooved ware to be contemporary with the late Neolithic ceremonial complex, but too far distant to establish with certainty the environment of the monuments.

The surviving barrows adjacent to chalkland sites preserve potentially far securer evidence of immediate environment, and at Gussage, Amesbury, and Rudston excavation has provided some data.

Beneath the Thickthorn long barrow, in alignment with the south western terminal of the Gussage terminal but not certainly antedating it (Barrett et al 1981), the buried land surface revealed an environment dominated by a land-snail fauna of completely open country type (Kennard 1936; Evans 1971, 73). Although detailed environmental data was not obtained from beneath Amesbury 51, c140m from the cursus, it was clear that a stone free dark reddish brown layer 0.75m thick which rested on a disturbed horizon of angular weathered chalk and flint fragments represented a deep turf line overlying a plough soil (Ashbee 1975). The depth of the stone free layer indicates development over a considerable period but whether this was preceded by a period of abandonment was not ascertained. A date of $1788 \pm 90\text{bc}$ (BM 287) for the primary burial may not be too far removed from the period of cursus construction.

Nearby the molluscan fauna from the ditch of the Fargo Plantation hengiform

site (of comparable or slightly later date) lacked all woodland species and pointed to an open grassland environment with coarse herbage and possibly a few bushes (Kennard 1938). The later environment of the Wessex cursuses appears then to have been one of open grassland.

Finally some environmental data was obtained from Rudston LXII, a site that can confidently relate to the construction of the adjacent cursus. Soil cores gave disappointing results but limited snail shell survival indicated an environment of intermediate cover (Wiseman 1972).

As with cursus deposits, too much of the evidence remains unpublished or poorly reported for certain conclusions to be drawn. There seems little support, however, for suggestion of continued woodland or scrub setting. The evidence from Thornborough and Sutton Courtenay/Drayton B seems irrefutable though and there is no denying that cursuses would possess a more striking aspect as corridors of cleared woodland. In the context of apparent economic collapse during the Later Neolithic cursuses might then represent the ritual response to the change from intensive to extensive systems of land use.

C. SOCIAL IMPLICATIONS

Whatever the nature of the environment, the locations selected for these often massive monuments must clearly have been of central importance. Is it safe then to assume from the extremes of cursus size that these were areas of tribal land given over to non regulated systems of land use?

i Land demands

The acreage of land explicitly designated for ritual use by the construction of a cursus varied enormously: for complete sites from 0.7 hectares (cl.7 acres) at Barford to 58 hectares (cl43 acres) at Gussage - (101 hectares (c250 acres) for the two combined Dorset sites.)

Figures for enclosed land are set out in table 13.1. They are not precise. Calculations have been made on the assumption of common rectangular plan and using only average transverse measurements but they serve as a basis for comparison.

Table 13.1 LAND REQUIREMENTS

MINOR CURSUSES : SITE	HECTARES ENCLOSED
Drayton St Leonard	0.51+
Charlecote	0.52+
Kinalty	0.56+
Inchbare A	0.6+
Inchbare B	0.6+
Barford	0.7
Longbridge, Warwick	0.86
Sonning	0.92+
Cardington E	1.02
Lechlade	1.03+
Hollywood B	1.08+
Balneaves	1.12+
Hollywood A	1.40+
Winterbourne Stoke	1.73
Hasting Hill	1.76
Stratford St Mary	1.94
MAJOR CURSUSES : SITE	
Biggleswade	2.9260+
Springfield	3.06
Sutton Courtenay/Drayton A	4.76
Thornborough	4.78+
Sutton Courtenay/Drayton B	5.52+
Fornham All Saints	5.81
Scorton	6.4+
Benson	7.3
Maxey (NW & SE)	7.68
Rudston C	8.14
Dorchester	9.92+
Rudston B	11.16
Aston	18.0+
Rudston A	18.9
Amesbury	28.76
Rudston D	30.0+
Pentridge	43.0
Gussage	58.0

It emerges that cursus sites only made truly massive demands on land in Wessex and Eastern Yorkshire; major sites on the gravels enclose on average an area of only some 7 hectares (c17 acres) whereas figures of 20-30 hectares (c50-75 acres) are normal on the chalk. In terms of land allocation such figures can be compared with those of c15 hectares (37 acres) enclosed by the henge ditch at Avebury and c10 hectares (25 acres) divided off by the palisade at Meldon Bridge. The latter is identical to the demands of the Dorchester cursus likewise placed at a river confluence. The massive Wessex cursuses though, and parallel only in the vast c45 hectares (c110 acres) enclosed by the networks at Hambledon Hill, almost certainly in response to exceptional, external threat (Mercer 1980).

Such parallels serve to underline the tribal nature of the major monuments but are inadequate as a measure of disrupted land use; the extreme linearity of cursuses ensured a vastly greater area of dislocation than a simple measure of compact acreage can indicate. The six and a quarter miles of the combined Gussage/Pentridge sites break the block alignment of Celtic fields (Bowen 1975) and where the banks survive today indicate something of the obstacle that was presented to the free passage of man and animals. Nor is it safe to conclude from the comparatively shallow ditches of most other sites that the demands were normally transitory and the monuments ephemeral: ring ditches were aligned beside the vestigial ditches of the Maxey cursus in the same manner as at Amesbury and Rudston. A like Gussage/Pentridge was incorporated as an element in a boundary dyke system at least a millenium after construction (Harding 1959; Dymond 1966). Whether as a physical or sacred barrier, these monuments certainly determined patterns of neighbouring land use over considerable periods. If laid out in virgin woodland the process of clearance and land apportionment must have taken them into account, or if placed in open country they would have determined the division of grazing rights.

The smallest wholly extant Minor Cursus is at Barford. Its 0.7 hectares (1.75 acres) is strangely close to the figure of 0.86 hectares (2.1 acres) for the ground area of the neighbouring but differently proportioned Longbridge Warwick cursus. Do these figures represent the size of a basic pasture unit in a dispersed agricultural holding, in this case detached for ritual purposes? The two rectangular fields of Grooved ware date at the Storey's Bar Road site, Fengate enclosed a not dissimilar area - 0.5 hectares (1.25 acres) - and represented, the excavator speculated, the size of apportioned winter pasture at the fen edge (Pryor 1978).

Most complete Minor Cursuses though range in area from 1 - 2 hectares, twice to four times the size of the Storey's Bar fields and closer in extent to the interconnecting fields of a single linear unit in the later Bronze Age field system at Fengate (Pryor 1980). These linear field blocks are in fact reminiscent of cursuses both by virtue of their integral rather than piecemeal layout and their basic dimensions. Although distanced by more than half a millenium from the latest artefacts recovered from cursus ditches it is tempting to speculate from their similarity that the pattern of intensive linear apportionment of pasture recorded by these fields was rooted in earlier, more ephemerally demarcated practices into which cursuses were interlocked (stake fences: cf Trelystan and Swarkeston: Britnell 1982; Greenfield 1960).

Comparably laid out reave bank divisions of Dartmoor are of similar date (Fleming 1983) but, in County Mayo Neolithic rectilinear field blocks have been recorded (Caulfield 1978). Although less precise in layout than the later blocks at Fengate they were similarly subdivided and similarly considered to be associated with animal husbandry rather than tillage. As units of a system within which cursuses might have been efficiently laid out they are neither sufficiently formal nor geometric, and considerably too wide (150 - 200m). They nonetheless provide a context for possible early land allotment. In area single linear blocks in this system enclosed

a minimum of 12 hectares (30 acres) - comparable to the demands of the chalkland cursus sites.

To set against such a picture of cursus construction within areas of hypothetical linear land division must be placed the orientation of all the field systems under discussion towards water, a vital consideration with grazing animals. The predominant alignment of cursuses parallel to rivers (fig. 13.1) would place them at variance with these demands as demonstrated at Aston by the alignment of later Iron Age or Romano British fields across the cursus site. It must be concluded then, despite the seductive parallel of carefully surveyed and apportioned land divisions, that cursuses took no account of the needs of such systems and hence that it is improbable that they represented a single formalized pasture unit given over to ritual use.

If not connected with a system of intensive land use, extensive common pasturing practices must be indicated. Absence of observable land division and the dispersed pattern of round barrows/ring ditches in cursus vicinities supports this. In Wessex Fleming has used the latter to argue that the downs represented open pasture and that those receiving burial there were transhumant pastoralists coercing sedentary populations. It seems unnecessary to postulate separate groups, however, when historic evidence exists for intercommoning, albeit largely in parish areas, on Salisbury Plain, Exmoor, and Dartmoor. Intercommoning would provide a mechanism by which a sufficiently large labour force could be assembled for cursus construction and carry the necessary social/tribal sanction to permit often massive areas of land to be detached from common agricultural use.

11 Place in putative territorial patterns

Case has argued (1982d) that the seasonally available grazing of the flood plain in the river valleys represented a prime resource within territories based upon causewayed enclosures and later on henges. He considers grazing

rights on it to have been exchanged with distant communities for flint, fine grained rock, and hunting rights. The same model can be applied to the chalk downlands of Wessex (Renfrew 1973).

Since cursuses were located on, or adjacent to, precisely such land and as they represent tribal monuments par excellence, how do they relate to these hypothetical territories?

Assuming at least partially utilitarian functions for causewayed enclosures it has been customary to assess the radius of their immediate catchment area as some 5km (Barker and Webley 1978). If Case is right in his emphasis on the value of flood plain grazing to the Early Neolithic communities of the river valleys it does seem probable causewayed enclosures would be constructed close enough to retain control of the prized resource. The 5km figure has been used therefore to test the minimum extent of potential territorial association; henges as ritual sites might be inferred to have possessed considerably larger territories (eg 17km as the bisected distance along the Upper Thames valley between the Stanton Harcourt and Dorchester henges; 11km as the distance from which the Stanton Drew stones were brought - Donovan 1977) but if assertion of a common purpose is to be tested the parameters must remain constant.

Table 13.2 sets out the incidence of cursus association with major monuments of causewayed enclosure, henge, stone circle type; hengiform sites have been classed with ring ditches and examined earlier as small mortuary sites of purely local significance. Extension of the postulated territory to 11km (cf source of the Stanton Drew stones) leaves the picture of associated monuments essentially unchanged.

Table 13.2 Major monuments lying within a 5km. radius of cursuses

CAUSEWAYED ENCLOSURES	HENGES	STONE CIRCLES
9 (?12)	11 (?12)	3

Stone circle association as expected registers low, the figure comprising solely the two Holywood cursuses and the Fourmerkland site which lie close to the Twelve Apostles stone circle. In view of the features linking this circle to local henges (Burl 1976, 103) it may be better to amalgamate henge and stone circle figures. This does little to upset the striking balance of cursus association with causewayed enclosures and henges - a pattern that appears to confirm the validity of territorial models seeking to explain these as successive tribal centres.

The relationship differs, however. As already indicated during assessment of the immediate associations of a cursus (chapter 5), relatively few causewayed enclosures are to be found within a 1km radius whereas henges when present are almost exclusively juxtaposed. This may be susceptible to a purely chronological explanation - a few causewayed enclosures being commemorated by later cursus sites but the far more frequent attraction of henges to these linear monuments. It is certainly the case that those cursuses most intimately associated with henges are of the apparently earlier group A type, and often stratigraphically superceded, whilst the B1 group, of almost certain 2nd millenium date, are geographically distinct. The assumption that all earlier sites were ritually "dead" may well be wrong, however, since the Amesbury and Rudston complexes reveal a measure of henge/cursus contemporaneity: 2460 \pm 60bc (BM 1583) from the primary silts of the Stonehenge ditch, and sarsen and bluestone from the cursus ditch; Southern Beaker sherds from cursus A at Rudston and Beaker and Peterborough

ware from the Maiden's Grave henge. The alignment of 2nd millenium ring ditches alongside the Maxey cursus also indicates continued respect.

Whether successive or complimentary the henge relationship is undeniably positive. Can they though be validly regarded as equivalent centres to earlier causewayed enclosures? In Wessex henges of Wainwright's "earthwork enclosure" type have been interpreted in this light but they differ markedly from formalized henges of the type associated with cursuses. These can only have been of ceremonial purpose. In the river valleys their location along with ring ditches and cursuses on lower terraces emphasizes their distinction from the earlier enclosures placed mostly on higher, better drained land. Later land use confirms the pattern: cropmarks of field systems or agricultural enclosures are frequently to be found in the same areas as causewayed sites whereas henges and cursuses are rarely associated with anything but a few, scattered pastoral enclosures (eg Cardington).

Like cursuses, henges can best be regarded as sites only seasonally frequented, probably during spring and summer grazing of the adjacent flood plain. In view of the potential value of this resource in exchange systems, and the location of henges in the Upper Thames valley at least, at river confluences, a pan tribal rather than tribal role should perhaps be inferred for them.

By contrast the more distant placing of causewayed enclosures viz a viz cursuses and hence areas of flood plain grazing is commensurate with a simple tribal territory model. Location of the enclosures on land suitable for permanent occupation and abundant artefacts and domestic debris from their ditches points to the probability of at least a spasmodic utilitarian function. In a mixed farming economy they would necessarily have had to be distanced to a substantial degree from pasture utilized on a purely seasonal basis and this appears to have been the case, if the equation of cursus with pasture is valid: the Lechlade and Barnack sites lie at the intersection of

5km territories projected around the varied enclosures in their vicinities; the Dorchester and Sutton Courtenay sites lie at a similar distance from the Abingdon enclosure and the Cardington enclosure is placed on a higher terrace 1.5km from the oblong ditches and cursus on the low first terrace. Less securely identified enclosures at Hampton Lucy and Eye lie within the orbits of the Charlecote and Sonning cursuses (Palmer 1976).

Since these cursuses are almost exclusively of the severely rectangular Bi series, and hence of almost certain second millenium date, a direct association with the causewayed enclosures just referred to may seem unlikely. Nevertheless the continued frequenting of such enclosures is attested by the upper ditch deposits at a series of sites (eg Abingdon, Hambledon Hill, Windmill Hill) which raises the possibility that they performed more than a simple ancestral role in Late Neolithic Society: the concentration of stone axes from a wide variety of sources at Avebury occurs around the causewayed camp and not the henge and Robin Hood's Ball appears an altogether more credible tribal centre for the Amesbury area than phase I Stonehenge, at least until the construction of Durrington Walls at the opening of the 2nd millenium. Lack of further causewayed enclosure construction after c2500bc need indicate neither loss of status nor purpose (cf the almost total cessation of parish church construction after 1540.) Rather the repeated correlation of these enclosures with later cursuses of comparatively modest dimensions may provide an indication of inherited tribal territories.

Cursuses along with ring ditches can then it seems be related to areas of seasonally available grazing, frequently within the orbit of other major monuments. The contrast between the normal peripheral siting of causewayed enclosures and the close proximity of henges, however, indicates the danger of too readily accepting that these were successive tribal centres. Major cursuses and henges occur in repeated combinations in the river valleys that suggest complementary function within ceremonial complexes of more than

local significance, whilst minor cursuses within the orbit of earlier causewayed enclosures were probably of more explicitly local mortuary purpose.

iii Manpower mobilization

Cursuses only seem explicable in tribal or intertribal terms. Even minor sites necessitated a substantial allocation of land and appear to have been laid out and constructed as a single act. This was clearly beyond the capacity of a single descent group to accomplish and certain major cursuses and cursus complexes appear equally to have been beyond the capability of single tribal units. In particular the combined Dorset sites rival Silbury Hill as the tour de force of Neolithic earthen construction - the banks being estimated to contain some 184,000 cubic metres of chalk compared to the 250,000 cubic metres of Silbury and a mere 100,000 cubic metres in the banks at Avebury (Atkinson 1955). There are increasing indications, however, that cursuses were intended to be dimensionally impressive rather than monumentally demanding.

Ashbee and Cornwall (1961) calculated that if due allowance was made for the considerable expansion factor of chalk the figure for excavated material along the courses of the Pentridge and Gussage site could be reduced to 105,000 cubic metres, and recent sections cut through the western ditch (Bowden et al 1983) have shown that if the proven cross sectional area of 3 square metres remained constant the volume of excavated material may have been nearer 61,800 cubic metres. Whilst these figures are still massive they reduce the combined monuments to more manageable human terms: applying Ashbee and Cornwall's excavation rate of 5 cubic feet (0.14 cubic metres) of chalk an hour with prehistoric tools a figure of 440,000 man hours is arrived at for its construction. Assuming ten hour days running concurrently, a work force of 1000 men might have been capable of completing the entire project in just 44 days. Following her work on the Amesbury cursus Christie proposed a similar time factor for that monument based upon

a work force of just 100 men.

Startin has recently queried the reliability of the work rate figures that formed the basis of these earlier calculations (1982a) and suggested instead that, assuming the use of wooden shovels, a prehistoric team comprising a picker, shoveller, and basketer could move 0.5 cubic metres of chalk per hour or 0.68 cubic metres of gravel. Since no major earthwork construction was involved in cursus building beyond the simple dumping of material at or just beyond the ditch edge, allowance hardly seems necessary for either earthwork height, as in Atkinson's empirical formula, or a basketer as the third member of a work team, at least on the gravel subsoils. Startin in fact appears to base his labour estimates for the southern enclosure ditch at North Stoke on a team of just two, and as in size and profile this is comparable to most cursus ditches the estimates in table 13.3 assume similar work practices (Startin 1982b).

The labour estimates for cursus construction in this table are of course related only to subsoil ditch digging: no allowance has been made for site clearance, which may have more than doubled the labour if woodland locations were in fact selected, nor for the initial removal of topsoil and subsoil loam. Internal wooden settings have also been left out of the calculations due to lack of knowledge of their extent or frequency. If like the pits at Hollywood B they were substantial and continuous, labour estimates might again be doubled: when assessing the labour involved in construction of the Fussell's Lodge enclosure Ashbee allowed 10 hours for the felling, trimming, and erection of each of the timbers at its proximal end. Finally, in those cases where figures are based on single ditch sections, as at Aston and Sutton Courtenay/Drayton A, revision of the estimates must be expected. Single ditch profiles are notoriously unreliable guides.

Despite these reservations it is clear from the table that the labour required for cursus construction on gravel subsoil was very significantly

Table 13.3 LABOUR INPUT

SITE	VOLUME OF MATERIAL	MAN HOURS (2 MAN TEAMS) * = 3 MAN TEAMS	ESTIMATED TIME TAKEN BY 100 MEN WORKING 10 HOUR DAYS
<u>CURSUSES</u>			
Gussage	35,400	141,600 *212,400	142 DAYS 213
Pentridge	26,400	105,600 *158,400	106 160
Amesbury	5,750	23,000 *34,500	24 34
Aston	11,529	33,908	34
Scorton	5,400	15,882 *23,823	16 24
Dorchester	5,983	17,597	18
Thornborough	1,954	5,747	6
Springfield	1,552	4,564	5
Sutton Courtenay/Drayton A	1,512	4,446	5
Maxey (SE)	972	2,858	3
Lechlade	696	2,047	2
Barford	220	647	$\frac{1}{2}$
<u>BANK BARROWS</u>			
Winterbourne St Martin	4,366	17,464 *26,196	17 26
North Stoke	671	5,300 (Startin)	53 (Startin - work force of 10)
<u>COMPARATIVE SITES</u> (after Startin 1982)			
Fussell's Lodge		4,000 (earthwork) 6,900 (fully posted barrow)	
West Kennet		15,700	16
Stonehenge I		11,000	11
D Walls (earthwork)		500,000	500

lower than for that of a comparably sized monument on chalkland. Only the Aston figure stands comparison with a site such as Amesbury but this estimate is tenuously based on a single recorded section. Other major cursus sites in the river valleys appear to have been capable of construction by a

labour force of 100 men in surprisingly short periods of time. Estimates range from 6/7 days for Thornborough and Maxey to 16/17½ days for Scorton and Dorchester.

Caution is obviously necessary since the Maxey figures are based on the proven ditch profile of the SE arm of the cursus alone - cropmarks suggest that the ditch of the NW arm may have been more substantial - and at Scorton dumping of ditch upcast to form a central mound would necessitate the reduction of the digging teams by a third for basketing operation, and so increase work time to some 24 days. Nevertheless even the doubling of the Maxey estimate and acceptance of the employment of basketers, reasonable perhaps in view of the uncertainty over the structural form of gravel cursuses, still indicates the probability of major cursus construction in little over three weeks with such a labour force.

The construction of comparable sites on chalk clearly necessitated the inclusion of a basketer in each team since ditches were in most cases more substantial, and sizeable berms have been recorded. Unfortunately estimates of labour can only be made for Wessex sites; the published profile of the ditch of Rudston A reveals it to have been incompletely sectioned (Dymond 1966, figs 1 & 3) and publication is awaited of work on the other cursuses there.

Even within Wessex major distinctions are evident though. The estimated period of construction of the Amesbury cursus does not differ markedly from that of cursuses on gravel subsoil (cf Dorchester and Aston - both rather shorter), whereas the Gussage and Pentridge cursuses were apparently vastly greater undertakings. This is not a measure simply of their greater lengths: Gussage at only a little over twice the length of the Amesbury site appears to have necessitated a labour input six times as great; and the distinction is increased to eightfold if comparison is made with the gravel

site at Dorchester which is a little under a third the length. Assuming comparable ditch dimensions for the adjoining Pentridge site, the Cranbourne Chase complex would have involved the continuous labour of a 100 man work force for a full year - $30\frac{1}{2}$ weeks Gussage; $22\frac{1}{2}$ weeks Pentridge.

Even with due allowance made for their obviously separate construction, work periods in the order of 6 months seem improbable. Misalignment of the two halves of the Gussage cursus below Gussage Down may indicate piecemeal construction but is equally susceptible to explanation as a problem of long distance surveying, and directional changes along the course of the Pentridge site relate purely to attempts to unite the principal alignment on the Pentridge IV long barrow with foci at the terminals. Continuous construction of each site seems probable and might easily have been achieved within the sort of time scale apparent elsewhere if a vastly increased work force is postulated: 1000 men would have proved capable of completing the entire project during some 37 days continuous work. It may of course be wrong to seek uniformity in the social basis of construction. The other massive earthworks of Wessex emphasize the strength, and potentially coercive nature of the social structure there, as at a later stage do the rich Early Bronze Age burials. Nevertheless the repeated association of Major Cursuses with burials and henges on land that seems to have functioned primarily as seasonally available grazing argues for their construction within a common social/agricultural mechanism.

Seeking to explain the monumental earthen structures of Wessex in terms of population growth and the emergence of localized proto chiefdoms Renfrew has suggested that a local population of 5000 persons could have supplied one million man hours per year towards great building projects. Since this could only have been achieved from a basis of agricultural surplus - probably in a Late Neolithic context primarily based on husbandry - the Dorset cursuses presents a paradox. They consumed a vast area of the land necessary to

support the surplus population that ensured their construction - three times that enclosed by the outworks of Hambledon Hill, themselves almost certainly the product of an aggressive chiefdom society. These cursuses, and presumably those at Rudston, would seem then to have severely reduced the capacity of local communities to support the work force needed for further monument construction.

If instead these massive cursuses are viewed as the achievement of transient populations from various clan and tribal groupings assembled as part of a transhumance cycle their demands would bite less deeply. An explanation as pan tribal monuments better explains their very limited distribution in Wessex, as compared to henges or causewayed camps, and the location of the Rudston sites precisely in the centre of a distinct concentration of finds of Later Neolithic prestige artefacts (Pierpoint 1980, 271-5). The implications of these variations in the social basis of cursus construction will be discussed in the next chapter.

In summary it can be said that at least some cursuses were laid out in an environment different to that of later henges but that both were sited on, or adjacent to, seasonally available land. Combined with the often massive dimensions of cursuses that would have rendered normal settlement in their vicinity virtually impossible, and the positive indications that these were not simply ephemeral monuments, this suggests seasonally limited access on communally controlled land over which a system of extensive pasturing operated.

CHAPTER XIV

DISCUSSION: PLACE AND PURPOSE IN NEOLITHIC SOCIETY

In so far as the tenuous evidence permits it has been demonstrated that cursuses arose from a fusion of long mortuary enclosure and bank barrow traditions, probably towards the middle of the third millenium bc. Certainly available C14 dates indicate that formative monuments encompassing open and mounded structures were current by that time (North Stoke, Wilsford, Douglassmuir), whilst later dates can be suggested for more developed, schematized forms taken to post date cursus development (eg Fengate). With publication of radiocarbon determinations awaited from Amesbury, Winterbourne Stoke, Maxey, Sutton Courtenay/Drayton B and Dorchester it will at last be possible to securely establish the place of cursuses relative to such sites, and hence to clarify this all important question of ancestry.

For the present the place of posted enclosure of Strathmore type remains obscure (the Douglassmuir date derived from a structural timber and may therefore be rather too early) but a unique concentration of all other types of site in the Midland/East Anglian region makes it virtually certain that this was the centre whence cursuses emerged. The area seems ideally suited for the genesis of imposing but economical monuments, open as it was to the influence of North European elongated mound building and to structural answers to the heavy demands of turf barrow construction. Establishment here of insubstantial pre-mound ditches as a monumental form in their own right probably provided the basis for dynamic expansion, coupled perhaps with patterns of severely reduced mound construction as recorded at North Stoke and perhaps Crickley. Unfortunately heavy plough erosion has ensured that knowledge of the varied contributions of open and mound sites to the process will remain forever obscure.

Whatever the original form of the monuments of the region, however, and the first cursuses to emerge from them, it is clear that they belonged within the long mound tradition: characteristically "mound" rather than mortuary aspects of ritual seem to have received emphasis and monuments were subject to the familiar influences of grandiose extension and increasingly precise delineation. This presents a problem. Why as products of a common background should cursuses have developed and spread after the mid third millenium hiatus which marked the effective end of long barrow construction?

Ease of construction and acceptance of symbolically reduced architectural features provides perhaps the simplest explanation. The former is evidenced on the Wessex chalk by the not too dissimilar labour estimates for the Winterborne St Martin bank barrow and Amesbury cursus. These exceeded that of the altogether more modest, but fully posted, Fussell's Lodge long barrow by factors of not more than 4 and 5 and perhaps as little as 2.5 and 3.3 (table 13.3). Symbolic architectural reduction is also commonplace in ritual monuments development. Transformation of the chancel arch as a comparable defining component in medieval church ritual exemplifies the process: taken at extremes there seems little to link the squint like entrance way which pierces the forbidding chancel wall in an 8th century church with the filigree lattice of a 15th century rood screen, symbolically performing the same purpose within a barely perceptible perpendicular arch. Had these been the sole motives for adoption and proliferation though minor cursuses ought to be more numerous outside the early centres and more closely related to the scattered patterning of barrows. Instead cursuses appear in almost every case as fully developed major sites apparently superceding monuments unchanged in essentials for over half a millenium; steady evolution is indicated only in the Midland/East Anglian region. If the abrupt cessation of long barrow building revealed by present evidence is synchronous with espousal of the cursus it would appear to indicate sudden onset of the centralizing tendencies that characterize the Later Neolithic.

Until the question of date has been resolved we can do no more than speculate as to the significance of this. Were the groups constructing these new territorial monuments the tribal amalgam of separate long barrow building communities or their socially and chronologically more distanced Later Neolithic descendants? As tribal monuments the advantage of cursus over bank barrows lay perhaps in their accessible interiors, a fact that almost certainly explains their acceptance throughout the earthen long barrow region. Subsequent concentration on them might then explain the demise of long barrow building. Alternatively spread of the cursus concept could be related to events that fundamentally restructured Neolithic society in the middle of the third millennium. Long barrows probably represented increasingly aggressive group identifying devices amongst the potentially fractious communities of Earlier Neolithic Britain - hence the remodelling of several to receive regionally stereotyped features (eg Giant's Hills II; Wayland's Smithy I & II) - and as such would be inevitable casualties in social and economic breakdown (Mercer 1980; Dixon 1981; Bradley 1978). The conceptual foundations, perhaps founded as early as the 5th millennium bc in Bandkeramik communities' practice of constructing certain exceptionally elongated long houses (Milisauskas 1976, 35) would have been more difficult to shake, however. Reduced and probably realigned communities, perhaps forced to coalesce in order to survive, may therefore have resorted to the economical eastern pattern of monument construction. Continued cursus building and refinement of form into the 2nd millennium, when prestige artefacts and high status burials point to surpluses within a stable stratified society, indicates though that these were not merely emergency expressions of ritual.

At present there is little evidence on which to base a choice between these alternative suggestions of cursus proliferation but since the bulk of the artefacts and associations are of Later Neolithic date the latter might most closely approximate to reality. In this event, and on the assumption

that size demands their consideration as tribal monuments, distribution patterns should broadly reflect the new groupings to emerge from the trauma.

In fact major cursuses are widely and relatively evenly dispersed (fig 3.1), with elsewhere definite groupings of minor cursuses (eg Charlecote-Warwick) or regularly ditched (?late) oblong ditches (eg Stratford St Mary - Lawford) that might be accorded similar central territorial status. Their patterning across lowland England also cuts across that of the presumptively earlier causewayed enclosures, as a model of collapse and regrouping would predict; at Lechlade, Maxey, and Amesbury, cursuses lie within the orbit of several enclosures and cursus/oblong ditch distribution contrasts strongly with the remarkably even patterning of causewayed sites in southern East Anglia (Hedges & Buckley 1978, fig 22). Nonetheless viewed independently cursuses often seem awkwardly placed as focal sites. This may of course reflect no more than patterns of land use (chapter 13) or the distorting effects of the narrow corridors of river terrace gravels. In East Anglia, where permeable soils were more widespread, and the constraints consequently less, the picture is clearer. Here the major Fornham All Saints site, a massive expansion of local oblong ditch architecture, seems to stand convincingly in the centre of the region but restoration of the fen areas to reed swamp leaves it near the western margins. Equally the other cursuses - Stratford St Mary and Springfield - lie close to the eastern periphery, albeit originally set beyond the present submerged land surface. This region is not alone. On the other side of the Fens the Maxey cursus matches Fornham quite closely in size and placing and the Holywood and Rudston complexes are located near the coast.

Is it possible that these monuments relate to pan tribal rather than tribal gatherings for which such siting would be an advantage? Consideration of labour estimates for the Dorset cursuses led to just such a conclusion (chapter XIII, CIII) and evidence that BI sites at least were constructed as a single act could point to their completion during the time span of a single gathering. Impressive monuments of familiar linear form might have ensured

the necessary neutrality to areas where potentially hostile groups met, particularly if produced in concert. Such events would also make more explicable the enormous investment of land (some 70 hectares within the combined Rudston cursuses and a further 16 hectares within the presumed "box" created by them), if related to gatherings to which valued items were attracted for exchange.

Axes provide the most tangible evidence of such activity and significantly Manby (1979 b,76) has tentatively proposed such an entrepot function within this trade for the Thornborough and Cana complexes. Strategically placed midway between the Pennine crossings to the group VI axe factory sites and the main concentration of axes in the Yorkshire Wolds, these would have been ideal centres. Details of cursus plan support the hypothesis. The Thornborough and Rudston C cursuses are strikingly similar and Holywood B, just beyond the northern end of this chain, bears quite a close resemblance to them. Lying along with the Twelve Apostles stone circle at the mouth of Nithdale this site stands at the end of another route to the axe factories, the only easily accessible one from the densely settled western lowlands of Scotland.

A comparable complex, possessing updated henge rather than cursus, lies at Llandegai. It is similarly placed relative to the group VII factory and significantly the cognate "terrace" at Bryn yr Hen Bobl, on the opposite side of the Menai Straits, contained and covered axe working debris. In gaps in the hills along the route to the West Midland, following the distribution trend of axes from this source, are to be found the Corwen and Welshpool sites. Even in central England the Aston and Findern sites lie on broad expanses of Trent river gravel between the source of group XX axes in Charnwood Forest and their principal concentration in the Peak District; their subsidiary concentration on the Breckland lies beyond the Maxey cursus in the hinterland of Fornham All Saints. It may not be too fanciful even to postulate a link between the anomalous outlying oblong ditches in Devon and

the dense concentration of south western axes (group 1) in Essex and Suffolk where such sites are centred. Axes are after all comparatively well represented from cursus confines (chapter IV A1c) where other artefacts are rare.

Clearly all sites cannot be explained in terms of the axe trade. The nodal position of Dorchester would nonetheless have rendered it an ideal pan tribal centre for whatever purpose, and the Wessex sites lie in "core areas" characterized by the wide range of pot and artefact types that declare them as interaction zones. The massive Late Bronze Age site recently discovered on the Greensand at Potterne in Wiltshire probably reflects earlier settlement-transhumance patterns that had ensured concentration of ritual sites on the chalk downs.

Cursus proliferation away from their area of origin may then owe less to the restatement of earlier ritual on a massive, symbolic scale by newly emerged territorial groupings than to the focal requirements of pan tribal interaction. For this purpose their size and capacity for rapid construction would have probably proved ideal. Significantly most of the cursuses under discussion in this context have been of the putatively early A type and appear to have been superceded by henges. Cursuses of later type were added to one or two complexes (Rudston & Holywood) rather as class II henges were at Llandegai, Penrith, and Stenness/Brodgar but in most cases henges eclipsed the earlier linear monuments - perhaps because in the emergent chiefdom societies of the 2nd millenium they proved more satisfactory as theatres for personal display. Thereafter cursuses were displaced from these centres and seem largely to have been restricted again to their original heartland.

This geographical, and presumably functional, separation permits separate assessment of the role of henge and cursus in the critical Midland/East Anglian region. Henges are uncommon monuments there: non existent in the Avon and

Ouse valleys, uncertain in the Trent, infrequent except at reduced size in East Anglia and relatively uncommon in the Thames Valley. Unlike the Big cursuses of the region they exercised little direct attraction over ring ditches. The putative Stratford St Mary and Twyford henges were unassociated with sepulchral sites although these clustered around nearby cursuses, and the Arminghall and Arbor Low sites had little direct focussing effect on the dispersed distribution of round barrows in their vicinities. Only the major class II henge at Stanton Harcourt acted as a definite concentrating influence but the exceptional lengths to which its builders went quarrying its stones, and its location like Dorchester, at a river confluence, argues that in common with the cursus-henge complexes under discussion above it was of more than local significance. A radiocarbon date (2060 ± 120 bc HAR 1887) places its construction after that of the Dorchester cursus but before the Big Rings. It could be conjectured therefore to have been laid out to rival the outmoded Dorchester monuments where the class IIA henge was later constructed to reassert the site's importance.

Cursuses by contrast exercised a spatially obvious attraction over ring ditches that persisted even in localities like the Breckland where permeable soils permitted dispersal. Limited excavation makes it dangerous to hypothesize about the number of these that might be characterized as high status burials. A consistent general association of Bell Beakers with cursuses is discernible in the intensively investigated Upper Thames Valley - Sutton Courtenay, Dorchester and Drayton St Leonard (Case 1956) - but this is vastly outweighed by the strong focussing effect of the Devil's Quoits henge. Much the same seems true in the north of the region where present evidence reveals a concentration of Macehead complex artefacts and Beakers in the vicinity of Arbor Low (Bradley & Hart 1983, fig 5) but to date just two W/MR Beakers within the nearest cursus - Aston on Trent (Vine 1982).

In terms of labour expenditure and resultant monumentality henges were

certainly the more significant sites - a distinction that is immediately obvious from a glance at aerial photographs of the Dorchester complex or the surviving earthworks at Thornborough. The relatively low labour figures for many cursuses (even with allowance for attendant post settings) would hardly stand comparison with those that could be conjectured for these class Ila monuments, or for the Devil's Quoits. Perhaps for this reason alone henges appear to have attracted higher status burials, although in absolute terms far few sepulchral monuments.

Cursus and henge then appear to have represented quite distinct elements in Late Neolithic ritual practice. The former, direct products of the long mound tradition and the first ritual monuments to be expanded to fulfill a centralized or pan tribal role, appear to have been concerned with ancestral practices and death; the general association of later isolated forms with ring ditch cemeteries (eg Lechlade) confirms continuity of mortuary purpose. By contrast henges, dominating during the late 3rd and first half of the 2nd millenium bc were probably, like stone circles (Burl 1976, 78-89), principally concerned with fertility, although some reveal evidence of a secondary cemetery purpose (eg Stonehenge I, Milfield north). This distinction receives emphasis from concentration of the late and most highly refined cursuses - the BI series - in the old heartland and the complementary location of major class II and Ila henges to north and west (fig 14.1). Such opposed distribution patterns are unlikely to be coincidental particularly as these, the most formalized manifestations of cursus and henge architecture, were probably contemporary. The pattern recurs again in Eastern Scotland where the posted enclosures of Strathmore occupy a lacuna between the recumbent stone circles of Aberdeen and the related sites in Perthshire.

It is tempting to conclude that it records fundamental ritual exclusion and therefore that henge-cursus combinations at major complexes resulted from iconoclastic slighting and restructuring. Cursuses may however have had no

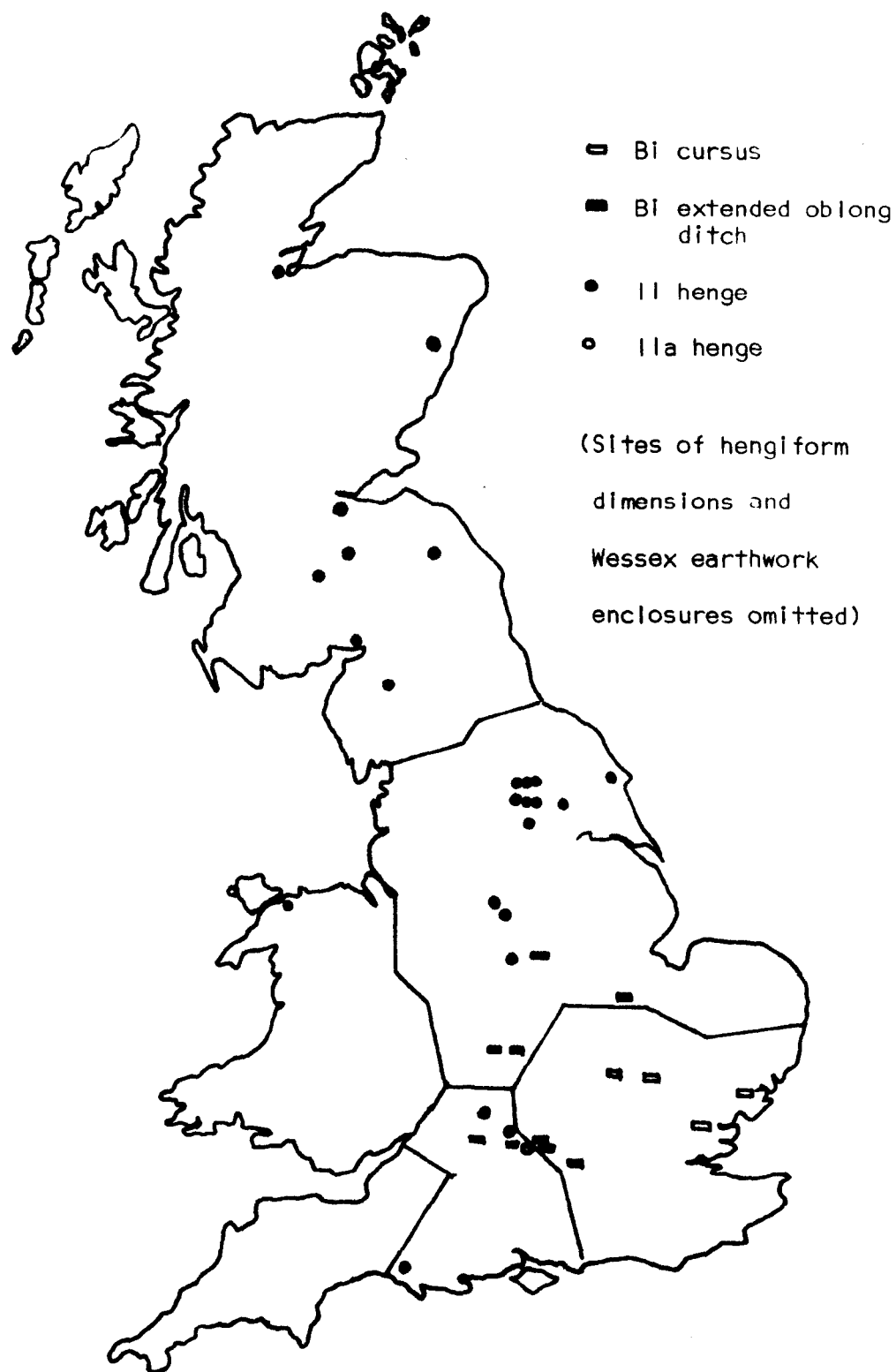


Fig. 14.1 THE DISTRIBUTION OF BI CURSUSES AND TYPE II/IIa
 HENGES SUPERIMPOSED ON BURL'S CIRCULAR RITUAL
 MONUMENT ZONES. (Note general correspondence of
 BI sites with uncertain S.E. region.)

role to play in the highland zone where linear banks added to earlier tombs perhaps performed an allied symbolic function and where chambered tombs continued to be constructed or remained as viable mortuary sites throughout the Later Neolithic (eg Quanterness, Isbister, Maes Howe - Renfrew 1979; Hedges 1983). Equally the very modest size of the few East Anglian henges (Boxted, Little Bromley, Stratford St Mary) and the repeated association of multiditched hengeiform sites with cursus and cursus related monuments (eg Dorchester Overy; North Stoke; Cardington; Fornham All Saints) may indicate their performance of the role elsewhere accorded to major henges. Certainly available evidence points to the contemporaneity of such circular and linear sites (Barford A: 2416 ± 103 bc : Birm 7 ; Llandegai: 2530 ± 145 bc : NPC 224 ; Wilsford: 2560 ± 103 bc : BM 505 ; Dorchester c 2500bc). Rather than slighting or superceding, henges may in fact have been so sited at major complexes as to draw power from ancestral linear monuments, as presumably was the cursus from site VIII Dorchester.

Regional conservatism, preference or specialization may instead underlie the pattern then. Henge ancestry is more obscure than that of cursuses - Earlier Neolithic ring ditches, hengeiform cremation cemeteries, passage graves and causewayed enclosures all having been invoked as progenitors. Nevertheless a similar geometric formalization of earlier practice can be conjectured. It may be significant therefore that earliest dates come from the west and north and that in the latter direction lay the Hasting Hill enclosure, representative perhaps of an as yet little located series of such sites. Derivation of henge plan from such minimally interrupted ditch lines seems easier to concede than from the multiple causewayed southern sites. Notable correspondence of the latter with the principal spread of cursuses might then reflect less contemporaneity than comparatively late performance by these enclosures of the role elsewhere accorded to henges (fig 14.2). Within such a regional model of ritual monument development further refinement of cursus and henge plans within their original heartlands might be assumed to have followed

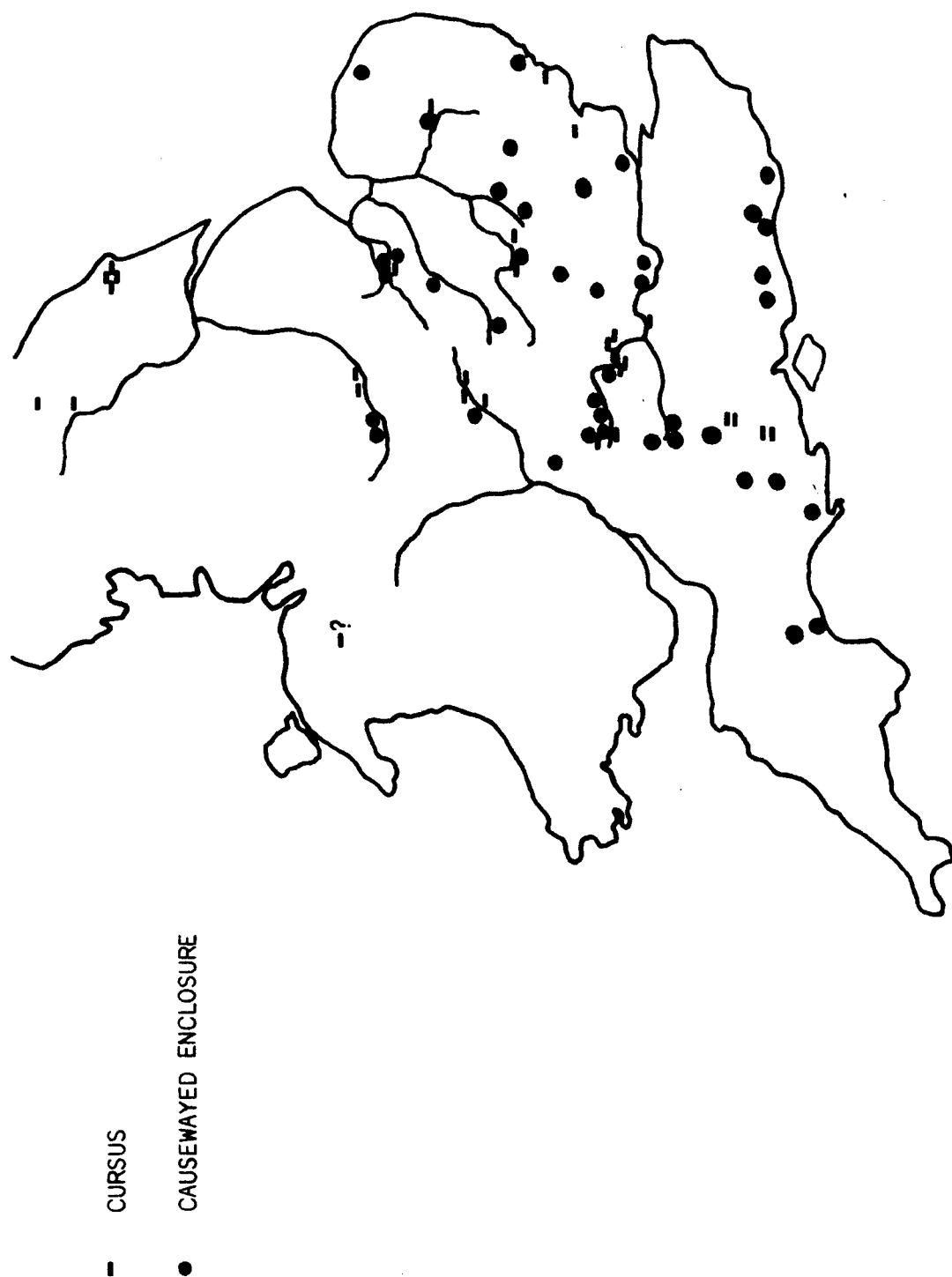


Fig 14.2 THE DISTRIBUTION OF CAUSEWAYED ENCLOSURES AND CURSUSES

spread of the initial concept to farther flung regions, perhaps through the mechanism of the axe trade, where interaction with emergent stone circle and avenue traditions probably blurred monument characteristics. Such development would not of course be invariable so it is perhaps significant that those areas where continued long barrow construction is attested (Sussex; Alfriston 2360 110bc : HAR 940; Lincolnshire Wolds: Giants Hills I 2460 150bc : BM 191; 2370 150bc : BM 192) at present lack both cursuses and henges.

Underlying these hints of early regionalism may perhaps be the work of individuals or groups of architects. In this context Burl has drawn attention to the close resemblance of the Cairnpaple and Arbor Low circle henges (1976, 279-281, fig 47) and the almost identical but atypical plans of the Stratford St Mary and Cardington (E) cursuses demand explanation in similar human terms. Geographical clustering of sites with shared orientation and morphological trends (eg BI, N-S sites, Thames & Avon valleys; AI/II, E-W/SE-NW sites in East Anglia) points in the same direction and the expertise necessary for laying out BI sites has already been demonstrated to force consideration of the presence of specialists. As such individuals must have operated within a recognizable cultural context it is tempting to speculate from the few recovered artefacts that those responsible for cursus construction belonged amongst Peterborough and other bowl using communities, hence the backward looking nature of these monuments. Henges on the other hand reveal a consistent association with Grooved ware for which adequate prototypes are still lacking, beyond shared Boyne art motifs on a few Orkney sherds. Might the henge then represent a new element introduced by movement of people from the west? Major concentrations of Grooved ware in the East Anglian cursus area make such a monument-culture dichotomy unlikely unless subsequent overlay is envisaged. Just such a picture of coexistence is emerging in Orkney (Hedges 1983) and it could perhaps be conjectured that refinement of cursus form (BI) resulted from the appearance of Grooved ware

using groups in East Anglia adopting local monument types. In the absence of firm dates it is probably pointless to speculate. Whatever the underlying cultural and ceremonial equation, cursuses can be related to general Later Neolithic patterns of increased formalization and monumental exaggeration in the restatement of earlier practices. In addition to the emergence of geometric henge architecture, the earlier regional practice of round barrow burial in Yorkshire (Coombs 1976; Manby 1980) was reasserted by a series of very substantial round mounds of Duggleby type; sizeable bank barrows were being built or had just been completed in Wessex (eg Winterborne St Martin); linear banks emulating earlier long cairns were added to round and heel shaped cairns in the highland zone; and in the far north the same geometric concern was shown with the plan of Maes Howe as characterized BI cursuses in the south. The appearance of identical Dorchester series cremations in both massive Yorkshire round mounds and modest southern hengiform sites, with their accompanying and more substantial linear monuments, confirms regional architectural influence within a common burial tradition.

Such variations - regional or social - have ensured that cursuses cannot be fitted into a neat, evolving typological sequence despite the common formalizing and exaggerating tendencies to which all were subject. The small BI enclosure at Fengate demonstrates that size was a measure of the social strength of local communities and not date, and the late but comparatively irregular cursus A at Rudston warns against basing typologies purely on ditch morphology. Just as an overlap of dates characterizes the components of Later Neolithic circular architecture (hengiform pit circles, ring ditches and class I henges) so the varied linear monuments (full bank barrows, low linear mounds, long mortuary enclosures, extended oblong ditches and developed cursuses) may have coexisted across the country as a whole, at least until the opening of the 2nd millennium when cursus form dominated.

As impressive monuments in the cropmark landscape cursuses appear to indicate

the great strength of those communities constructing them. It is worth recalling therefore that the energy expended on the dual mortuary and ceremonial components of the Stenness/Maes Howe and Brodgar/Bookan complexes vastly exceeded that on henge and cursus at either Dorchester or Maxey. Only the isolated Dorset sites achieved true monumentality, confirming the evidence produced by Silbury, Winterborne St Martin, Avebury and Stonehenge II of the exceptional nature of Late Neolithic Wessex where all forms of ritual architecture received exaggerated statement.

Function

The suitability of regionally developed long mortuary enclosure architecture for fulfillment, as cursuses, of an early centralized or pan tribal role is clear, but to what direct purpose could these vast enclosures have been put?

Processions associated with adjacent or incorporated burial monuments have been a favoured explanation on account of the extreme elongation of many sites. For such purposes though cursus architecture seems inappropriate: entrances are normally oddly offset (like a cathedral lacking a great west door); focal monuments strangely buried in the bank, slighted by the ditch or set outside the enclosure confines altogether; and cursuses themselves often so wide as to dwarf all but the most massive processions. Even the most exaggerated sites - the combined Dorset cursuses - where processional activities appear to provide the only credible explanation, are rendered ineffective for the purpose by an unslighted dividing terminal and a transversely placed long barrow effectively blocking free passage. The apparent absence of an independent entrance to the Gussage cursus presents a further difficulty. Had a ceremonial approach to long barrows akin to the post avenue at Kilham been intended a reduction in curvature of the Pentridge cursus on Bottlebrush Down by only 50 metres would have successfully axially aligned it on the proximal end of Pentridge IV. The latter's incorporation instead in the bank, which disguises rather than

emphasises it, is indicative of quite different purpose. Repetition of this configuration at Dorchester, and the more common alignment of sites on transversely orientated long barrows/long mortuary enclosures points to a general disinterest in the ritual potential of these earlier monuments.

Hengiiform sites were equally illplaced as processional focuses: never axially aligned within or just outside a cursus terminal and at Dorchester apparently incorporated in the bank line only after closure by the postulated covering mound. This pattern is repeated by the ring ditch at Aston and elsewhere small ring ditches or pit circles are likewise invariably so placed as to intersect the monument's ditch line. In addition ring ditches at cursus extremities are consistently offset rendering them ineffective as focal points. The semi circle of posts within the eastern terminal at Springfield appears a better contender as the object of processions but as already detailed, might be better interpreted as the semi circular termination of two lateral alignments. Post holes elsewhere defined flanking rather than axial arrangements.

One certain post circle has been located - on the axis of the Dorchester cursus (Chambers 1983) - but near its midpoint not focally at a terminal. This position was shared with a hengiiform (site IV) and a small ring ditch (pl 12.2) so it is possible that all were of similar mortuary purpose. Such patterning is repeated by ring ditches/round barrows at the ?later Aston and Maryton cursuses and may be conceptually allied to the axial mound at Scorton. Are ambulatory processions then a possibility? The limited width of several formative sites, and lack of either recognizable axial features or mounds at others make this unlikely. Many sites, notably those of the Warwick Avon seem too short for processional purposes and it can be discounted completely for certain oblong ditches such as Fengate of otherwise identical plan. Varied functions are of course possible but in the absence of more conclusive evidence for this, and in view of the morphological unity of the sites, it

seems better to assume unitary purpose.

A processional interpretation can then only be sustained by concentration on the upper end of the size continuum and even there fails to adequately explain the idiosyncratic positioning of supposedly focal monuments. In addition account must be taken of the inevitability of wet feet if processions are held to have taken place within the Rudston and Gussage cursuses!

As supposed arenas for funerary games cursuses prove equally unsatisfactory: the axially aligned monuments at Dorchester and Aston were undoubtedly contemporary components yet cluttered interiors, whilst elsewhere presumptively later ring ditches would, despite their attraction to cursuses, have paradoxically destroyed their function as arenas. It is also difficult to conceive of games that might with equal effect have been played within both the Fengate enclosure and the Gussage/Pentridge and Rudston cursuses, negotiating en route in the latter cases intersecting banks and ditches. Inclusion or exclusion of burial monuments (cf Amesbury and Aston) in fact probably relates not to consideration of use of the interior but to their age relative to the cursus.

Such a pattern of incorporating earlier mortuary sites and attracting later ones is familiar from long barrows and since a morphological and conceptual link with such sites has been established an answer to the question of purpose is better sought here. Given the frequent interpretation of long mortuary enclosures as exposure areas it might be concluded that cursuses performed this function on a tribal scale. No evidence exists for the open exposure of bodies within either type of monument, however, and cursuses have been shown to be contemporary with cremation and articulated inhumation practices not the disposal of disarticulated remains. In this context the consistent finding of evidence for burning within cursus interiors is interesting. Various features at Springfield and Sutton Courtenay/Drayton B

indicated in situ burning and the fill of four shallow pits forming a rectangle 13m x 8m within the Dorchester cursus (site X) contained a fill of "fire reddened earth and dark greasy soil" (Atkinson 1951). The vertical sides of the latter indicate almost immediate backfilling which confirms their ritual purpose. Scattered charcoal flecks have also been noted in ditch fills at Maxey and Aston and could be conjectured to have derived from the remains of fires within these enclosures. Bone has also been recorded: within the fire reddened fill of the pits just mentioned at Dorchester and from a similar matrix within one of the internal features at Springfield (215: Hedges and Buckley 1981, 6). In each case this proved to be animal not human derivation (largely sheep at Springfield.) A pit cut by a later ditch near the SE terminal at Dorchester did however produce several human tooth crowns, and bone (as yet unidentified) along with a scraper (Chambers 1983).

Were these enclosures then funerary precincts within which cremation took place? In total the finds are few but pyres like superficial mortuary features within earlier sites (eg Charlecote) could only be expected to leave enduring traces if in some manner protected from subsequent erosion. It is noteworthy therefore that finds of ash and bone are restricted to features either coincidentally or deliberately filled. Such an explanation though must take account of the dominance of animal not human bone, closing of the interior at Scorton, and perhaps other sites, by a mound, and the vastly inflated size of many major sites for such purposes. Nothing short of a tribal or intertribal holocaust could have filled Gussage, Pentridge or the Rudston cursuses with funeral pyres! Furthermore Rudston A has been shown to relate to Beaker inhumation not cremation in the nearby cemetery.

The recurrence of burnt animal bone and ash, and of distinct burials (eg Thornborough) or burial areas (eg Dorchester) recalls rather the contents of the 3rd century bc oblong ditch at Libernice in Czechoslovakia with its complex of pits at one end and a single axially placed inhumation near the

centre. Pigott (1968) has linked this, and the even more strikingly cursus like site at Aulnay aux Planches, to the same early tradition which in Greece gave rise to the concept of the temenos - literally a "cut" or share of land apportioned to the god. Such a concept may provide the best explanation for the cursus, encompassing as it does both open and closed forms of monument. Given that the case for cursus development within the long mound tradition seems secure it is inherently unlikely that they performed totally opposed functions as either processional avenues or arenas. As a temenos though, with form and proportion dictated by antecedents, they could be regarded as performing a symbolic function akin to that of earlier empty mounds. Focal monuments would not then have been a vital consideration. A temenos devoted to ancestral purposes might have drawn power instead from their structural incorporation, as did long barrows. The location of apparently contemporary, and directly funerary, hengiform sites beside cursuses and allied linear sites emphasizes the ancillary function of these larger sites in the disposal of the dead. As symbolic temenoi, size and plan is unlikely to have borne any direct relationship to conjectured use as temporary resting places for the dead or as the sites of funeral pyres. At Dorchester, site VIII and the nearby Overy site would have been adequate for such purposes; the larger cursus may have usurped their function but was probably of essentially symbolic purpose. At suggested pan tribal centres where earlier mortuary sites were absent nominal foundation burials (eg Thornborough) may have been sufficient to authenticate the new monuments.

The distribution of artefacts around cursuses also lends support to a temenos notion. As already indicated they are concentrated almost exclusively outside cursus confines (Chapter IV BIIA). At Sutton Courtenay/Drayton A pits containing rich assemblages of Later Neolithic material appear to have been restricted to areas immediately outside the cursus ditches, and amongst these were pit V, containing 10 skulls and a number of limb bones, and pit F containing the unaccompanied crouched inhumations of a woman and two children.

This recalls the burial cut through the outer bank of the 1st century AD oblong ditch at Bow Brickhill. Similar evidence emerges from earlier oblong ditch sites which seem equally to have possessed reserved interiors: at Douglasmuir only a single post hole was found within the enclosure but outside two sizeable pits contained ash and hazel nuts and at Barford a comparable picture emerged. Resemblance to the spatial patterning of artefacts around the Woodeaton Romano-British temple temenos is obvious (Goodchild & Kirk 1954).

Is it too fanciful then to seek a link between British cursuses and later Celtic oblong ditch sites? Major geographical and chronological gulfs exist but recent discovery in Britain of a 1st century AD site (Loveday & Petchey 1982) and the probable dating of the Aulnay enclosure to the 10th century BC (Brisson & Hatt 1953; Piggott 1968, 57) goes some way to closing these. In addition the Slonk Hill temenos if correctly identified, provides an even closer link with cursus form (Rodwell 1980, fig 10.3). Intriguingly in view of the apparent woodland settings of several cursuses, these Celtic oblong ditches have been advanced as one physical manifestation of the nemeton ("sacred grove"). Furthermore if Posidonius' reference to the construction of a huge enclosure within which to hold a feast by the Gaulish chieftain Loverinus has any connection with such rectangular sites (Piggott 1974, 42) it would seem that they, like cursuses, were capable of enormous expansion. Feasting though, even of a ritualized nature, seems an unlikely purpose for a cursus despite the folk name for the extended oblong ditch of presumably 1st millennium date at Tara - "The Banqueting Hall".

Restricting ourselves to the excavated evidence the large post set up, perhaps to support an ox skull, opposite the entrance at Aulnay recalls those within British sites and the patterning of 1st millennium burials and ring ditches around the enclosure there recalls that around cursuses and oblong ditches (cf Barnack, Lechlade). In itself this is clearly insufficient to justify claims of continuity, however seductive the morphological parallels.

Nevertheless it is worth noting the association of the Maxey and Aston cursuses with Iron Age square ditched burials, excessively rare in central and southern England (May 1970; Pryor 1982). A general, though much less remarkable association, also occurs at Rudston where such sites are common. Interestingly their distribution broadly mirrors the course of the presumptively final cursus of the complex - site D (Dent 1982, fig 12). Tantalizingly also the Roman town of Verenemeton ("Particularly Sacred Grove") seems to have lain at the nearest approach of the Fosse Way to the Aston cursus and cemetery - the only cropmarks of obvious ritual nature in the region and almost certainly one of the latest cursuses.

If the association with Iron Age burials is positive and not simply the coincidental product of continuity of land use it must indicate that cursuses were defined in a more enduring manner than their frequently slight ditches would indicate. How might this have been achieved? As cleared avenues in woodland their visual impact would be enhanced and their location enduringly marked but, as noted at Thornborough and Dorchester, such settings had certainly disappeared by the date of henge construction. Post settings clearly had a limited life and appear in any event to have been atypical features. Deturfed or gravelled interiors on the other hand would provide a striking aspect and perhaps receive some support from layers of gravel overlying old land surfaces beneath round barrows within the Maxey and Aston cursuses (G Simpson unpublished section; Reaney 1968). Plant colonization is rapid though and unless deliberately kept clean, as has been suggested was the interior of the Avebury circle (Smith 1965), such an appearance would be short lived. In addition to the daunting scale of such a task it would have had the effect of rendering the often enormous enclosed areas totally useless - if left under grass flocks, albeit specially designated, might have grazed the interiors. Hedges or stake fences on cursus banks would have provided a more economical, though less dramatic, means of demarcation, and one now almost certainly untraceable by excavation. The

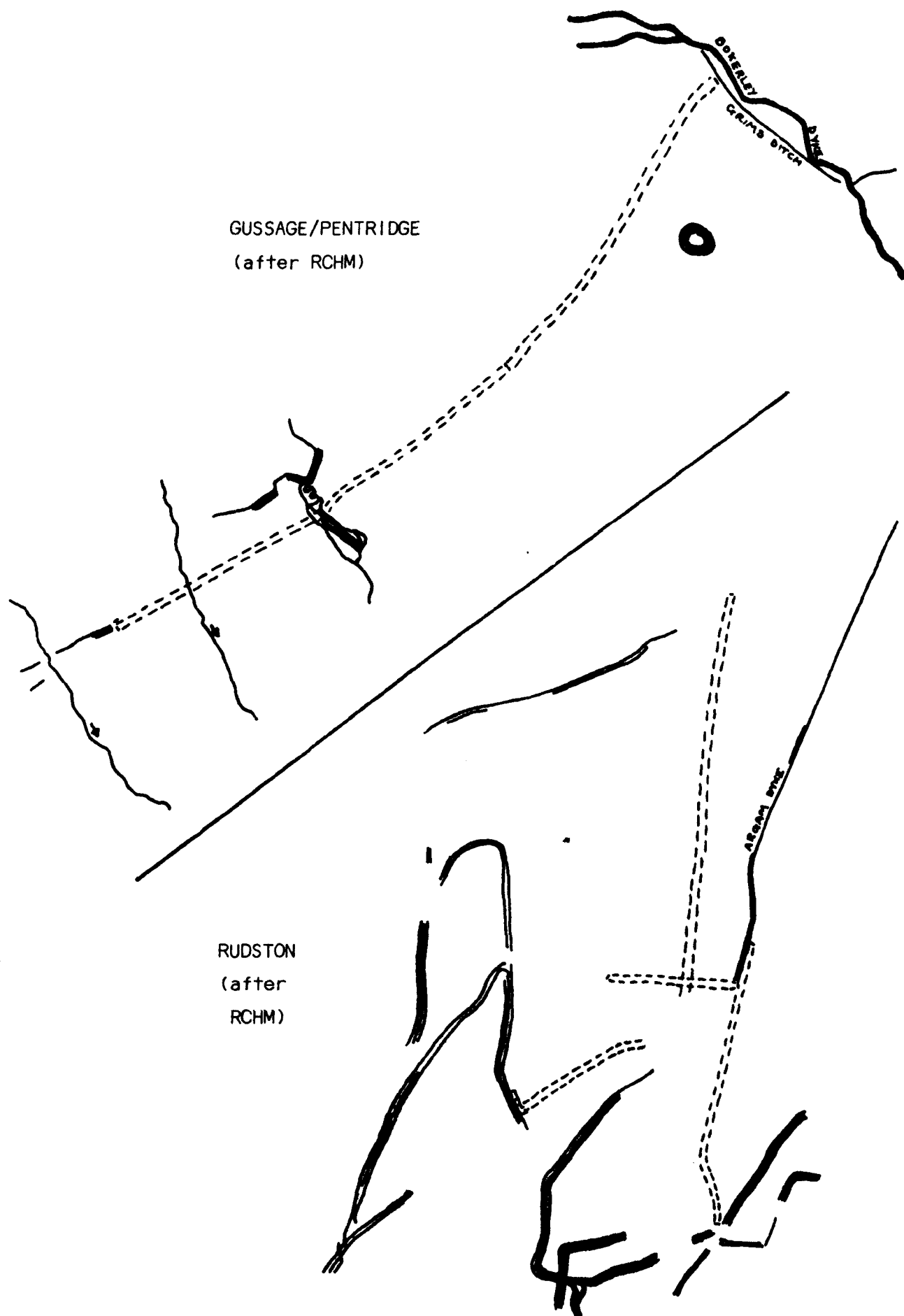


Fig. 14.3 CHALKLAND CURSUSES AND LATER
LAND BOUNDARIES

hazel twigs in the waterlogged ditch bottom of Sutton Courtenay/Drayton R might conceivably have derived from such a boundary and a fence stood within the ditch of the Winterbourne Stoke cursus, at least during its final phase.

Perhaps though cursuses should be regarded as for the most part relatively short lived monuments surviving only long enough to influence the patterning of ring ditches (cf Maxey) and henges (cf Thornborough). Notably it is only where truly monumental architecture is known to have been achieved, in Dorset and East Yorkshire, that later cognizance was taken of them, and then only as convenient components for incorporation in boundary dyke systems (fig. 14.3). As elsewhere overlying settlement features confirm loss of ritual status. Conceptual continuity if not monument survival from c1600 bc to c1000 bc is nonetheless conceivable even if reflux from the continent has to be entertained to explain the 1st century site at Bow Brickhill. The henge concept may have endured over a similar period as evidenced by the small ditched sanctuary at Frilford. Once the peculiar social dynamic of the Later Neolithic/Early Bronze Age had passed, circular and rectangular sites might have been reduced in scale (as perhaps at Cromwell and Charlton) so that the balanced constructed that characterized early practice was again achieved.

At the close of this lengthy examination of empty enclosures with virtually barren ditches the reader will understandably feel inclined to echo Dr Johnson's sentiment on seeing a stone circle - essentially that to see one was to have seen them all. His irritable comment came closer to the fundamental basis of Later Neolithic ritual architecture than he realized, however. Formalization was the keynote with circular and rectangular monuments subject to the same geometric influences. But by virtue of the greater expertise required in laying them, often over great distances, it is cursuses that best exemplify these accomplishments of the communities of Later Neolithic Britain.

APPENDIX I

GAZETEER OF SITES

The gazeteer comprises two sections:

- A. CURSUSES (minor and major)
- B. ELONGATED DITCHES (oblong, trapeziform and ovate).

Cursuses have been categorised as I excavated, II characteristic, III possible, IV doubtful, and V discredited, but elongated ditches simply as I excavated/characteristic and II uncharacteristic/doubtful to avoid undue fragmentation of a sample additionally subdivided by shape. All claimed sites have been assessed, and in most cases plotted, in order to establish not simply the features of proven prehistoric monuments, but also those of mistakenly identified sites. This has the additional advantage of permitting readers to form their own conclusions regarding sites relegated by the writer. Those sites securely placed within the "cursus continuum" therefore run from 1-37 and 76 to 128.

The corpus is ordered according to the national grid (running north to south and tracking west to east), with a county concordance placed at the end. Parish names have been adopted throughout, with alphabetical references to distinguish multiple sites of common type (only at Cardington and Buscot have adjacent and similarly sized cursuses and elongated ditches been incorporated in a single scheme).

Cursuses have been plotted at a scale of 1:10560 (with the exception of the complete Dorset complex) and elongated ditches at a scale of 1:2500, with some examples at each scale to demonstrate the degree of overlap. Sites are referred to in figures by their corpus numbers to permit easy

cross referencing but these do not always run concurrently because of the difficulty presented in accommodating sites of very varied size on single sheets. Instead plots of cursuses in categories I and II, along with certain category III sites (designated by an asterisk) have been loosely grouped on the basis of geographical area or type.

The principal encircling multiple round barrow sites, and the few Neolithic sites of overtly funerary purpose located in the Midland/East Anglian region, have also been plotted at a scale of 1:2500 for comparative purposes, as have the principal avenue sites at 1:10560.

CURSUSES

Format employed for category I, II and III sites:

Parish name, county, grid reference

Location: height above ordnance datum and brief comment on terrain/distance from river and alignment relative to it.

Details: proven size/major-minor designation/general orientation (azimuth calculated from O.S. map)/proportion

Form: terminal form/ditch type/alignment/causeways/other details (Abbreviations: d= ditch; align = alignment)

Excavation: (category I only)

Artefacts:

Associated a) impinging

monuments: b) within 1km

c) within 5km

Refs: Publications

Aerial photographs (principal references only)

Abbreviations:

CUC Cambridge University Collection

NMR National Monuments Record

NAU Norfolk Archaeological Unit

SAU Suffolk Archaeological Unit

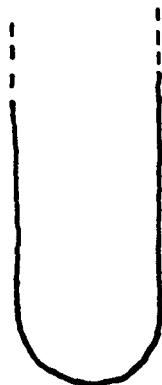
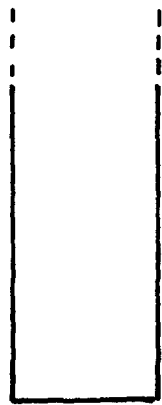
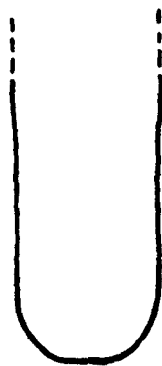
EAU Essex Archaeological Unit

General abbreviations used:

rd = ring ditch; rb = round barrow; a.p. = aerial photograph;

cm = cropmark; o.l.s. = old land surface

CURSUS TERMINAL TYPES

A_IB_IA_{II}B_{II}B_{III}

I EXCAVATED SITES

1 Offerton (Hasting Hill), Tyne & Wear NZ 355536-356540 (Fig. I)

Location: 91mOD : gravel overlying magnesian limestone on flat top near summit of Hasting Hill/400m from spring; c3km from River Wear

Details: 410mx40/45m (complete but only one terminal)/MINOR/ N-S (80°)/1:10

Form: Bi/d.fairly regular/align. straight but poorly executed/ no apparent causeways

Excavation: A. Harding 1980: single trench - ditch very shallow (eroded?)

Artefacts: None

Assoc.mons: a) None directly but irreg. r.d. just beyond butt end of east ditch
b) causewayed enclosure adjacent to terminal/r.b. with NMR - FN Beaker (Clarke 221) and E.Neo material - 500m
c) None of significance

Refs: Manby 1973 University of Durham 105/4; 116/3-8;
Newman 1976 117/2-8.

2. Scorton, N. Yorkshire NZ 235009-249996 (Fig. IX)

Location: 61mOD : level gravel terrace of R. Swale rising at NW end of site/500m from river; parallel

Details: 2,000m x 32m (incomplete)/MAJOR/NW-SE (132°)/1:62+

Form: Bi/d.regular at SE for 750m then irreg./align. straight (poorly executed beyond SE section)/multiple breaks but site badly disturbed/second (outer) ditch along most of length - status uncertain. A.Ps suggest two distinct sections: regular SE with Bi terminal; irregular NW, but no intervening terminal.

Excavation: Griffith 1976; Topping 1978

Ditches 3.4-3.85m wide x 0.4-0.6m deep, flat bottomed.

Griffith: backfilled with no recutting; Topping: V profile of recut below flat base. Differences possibly explained by absence of outer ditch in area of Topping's excavation.

Wide spread of gravel over central area surviving to height of 0.3m - relates to parch marks on a.p.s. Large external ramped post hole - 1m wide at base (2x4m at top) x 0.6m deep.

Artefacts: Transverse arrowhead from upper ditch silts.

Assoc.mons: a) None

b) 2 rds aligned with SE terminal + 6 others in 1km (a Beaker from one)

c) None of significance

Refs: Griffith 1976

CUC DQ 68-76 GU 60 RG 66-70

Topping 1982

BDE 50-2 BYY 52-5

3. Thornborough, N. Yorkshire SE 282791 - 289796 (Fig. VII)

Location: 61mOD : wide level plain of R. Ure/500m from river; right angled

Details: 1200m x 40-42m (incomplete)/MAJOR/ NE - SW (53-63°)/1:30+

Form: Ai/d. irregular/align. gently curved with sinuous section/ major causeway (5m) set back from terminal

Excavation: Thomas 1952; Vatcher 1958

Ditches shallow U profile: 2.0-2.7m wide x 0.45-0.7m deep

Primary and tertiary silting: dark humic material of forest derivation overlain at latter stage by henge bank.

Unaccompanied crouched inhumation in cist approx. in centre of terminal area, 5m from end.

Artefacts: 1 indeterminate body sherd

Assoc.mons: a) Class IIa henge
 b) 1 pit avenue/6 rbs + 1rd/ 2 further class IIa henges -
 aligned across line of cursus
 c) Henges at Cana - Nunwick

Refs: Thomas 1955 CUC VX 15 RG 8 BTY 28
 Vatcher 1960 NMR SE 2879/1-11
 St. Joseph 1977

4. Rudston A, Humberside TA099657-103684 (Fig. XI)

Location: 81-27-53mOD : extending from chalk wold top south of
 Rudston across valley of Gypsey Race to chalk rise on
 north side. Crosses river at right angles.

Details: 2700m x c.58m (tapering to 41m at s. terminal)/MAJOR/
 N-S to NNE-SSW (00-120)/1:46

Form: Bti/W.ditch regular; E.ditch irreg./align. slightly bowed
 with sinuous section/ no causeways apparent/terminal bank
 surviving to height of 1.2m (18m spread width)

Excavation: Greenwell mid 19th century; C & E Grantham 1958.
 6 burials (2 with Beakers) from terminal bank - only 1
 possibly primary

Artefacts: N2 and S2(E) Beakers from bank.
 4 sherds of developed Southern and Northern Beakers from
 base of ditch.
 E. Neo. pottery and occupation debris from old land surface
 beneath bank; Grimston ware from subsoil hollow within
 interior.

Assoc.mons: a) Intersects cursus C and ring ditch within it/Argam Dyke
 runs from point of intersection with cursus C along line

of western ditch and bank to and beyond northern terminal.

Continues alignment of cursus to the north.

b) 40 or more rds/cursuses B, C & D/monolith

c) Maiden's Grave henge

Refs:	Greenwell 1877	CUC ACK 19:21
	Dymond 1966	BEG 42-44
	Manby 1975	BUJ 62
	Loughlin & Miller 1979	NMR TA0968/2/210

5. Rudston C, Humberside TA088682-102680 (Fig. VII & XI)

Location: 53-27-49mOD : crosses Gypsey Race at right angles from chalk of valley sides

Details: 1480m x 50-60m/MAJOR/E-W (96-98°)/1:27

Form: Ai/d. irregular/align. straight/no certain causeways

Excavation: Kinnes, 1978. Two trenches : no artefacts; virtually chalk free silts; priority over cursus D proved but by unknown margin (ditch of D broken at intersection)

Artefacts: None

Assoc.mons: a) Intersected by cursus D near mid point; eastern terminal lies within cursus A. Small ring ditch offset within terminal and in line with western ditch of cursus A.
 b) 20 or more rds (many very small) - all obvious sites cluster at western end/cursus B
 c) Rudston long barrow/Maiden's Grave and Thwing henges

Refs:	Dymond 1966	CUC ACK 19	BUJ 62
		NMR TA 0968/2/210	

6. Rudston D, Humberside TA 097678-102719 (Fig. XI)

Location: 27-56mOD. Along valley floor until rising onto chalk proper

at northern end/parallel to and abutting present course of Gypsy Race.

Details: 4,000m x 50-90m (terminal 50m) (incomplete)/MAJOR/N-S (70°)/1:57

Form: Bii/d. very irregular/align. straight overall but with slight curve towards northern end.

Excavation: Kinnes 1978 : single trench ditch broken at intersection with cursus C.

Artefacts: None

Assoc.mons: a) Cursus C. LBA settlement features. 1/A square barrows.
b) 27 or more small rds and one of normal size 600m from terminal.

Cursuses A & B

Monolith 125m

Maiden's Grave henge 220m

c) Thwing henge

Refs: Manby 1976

CUC BEG 34 BZI 97 BUJ 62

NMR TA 0968/2/210

7. Findern, Derbyshire SK314287-319289 (Fig. VI)

Location: 41mOD : wide plain of terrace gravels/100m from present course of R. Trent but parish boundary indicates originally at least 220m away; parallel

Details: 575m x 70-72m/MAJOR/E-W (74°)/1:8+

Form: Terminals unlocated/d. regular/align. straight/possible wide gap (c.25m) in northern ditch adjacent to internal rd + smaller gap beside second rd.

Excavation: Wheeler, 1969: trial trench did not fully bisect site.
?later ditch running through the centre of the cursus

mistaken for northern ditch hence dissimilar profiles and silting patterns. Southern cursus ditch proved: 1.6m x 0.7m, V sectioned.

Artefacts: None

Assoc.mons: a) 2rds assymmetrically placed within cursus

b) 6rds of sepulchral circle size; one large example just beyond probable terminal

c) ? Henge (Round Hill) 1,250m. Grooved ware settlement 3km

Refs: St. Joseph 1966

Wheeler 1970 & 1979

O'Brien 1978, 7-8, fig. 5.

8. Aston, Derbyshire SK417285-426300 (Fig. VI)

Location: 34m00 : wide gravel terrace of R. Trent/650-1000m from present course of river; parallel

Details: 1800m x 96-100m (incomplete)/MAJOR/NE-SW (33°)/1:18+

Form: Bi/d. regular/align. straight/major causeway (10m wide) in offset terminal position c.90m from SW end.

Excavation: Reaney 1966: single section of ditch (3.25m x 1.5m, flattened base V profile); little gravel in ditch silts

Artefacts: None from cursus ditch section. 2 internal rds: W/MR primary burial with polished wrist guard and bt arrowhead from double ditched site. Grimston ware with occ. material on old land surface dated 2750 ± 130bc (BM271).

Assoc.mons: a) 7 or more ring ditches (some possibly domestic); 1 incorporated in lateral ditch line of cursus/1 trapeziform ditch abutting cursus ditch/square ditches 1/A "barrow"/ complex of agricultural enclosures and trackways of probable 1/A-RB date overlying and extending beyond cursus

b) 1 triple ditched hengiform and 1 penannular rd together
approx 100m from cursus/4 small rds

c) probable oblong ditch at Lockington

Refs: St. Joseph 1966 CUC BCL 17; 24
Reaney 1968 NMR SK 4128/17-18
May 1970 SK 4229/3-11, 7-9, 29, 94
O'Brien 1978, 6-7, fig.4

9. Maxey, Cambs. TF118083-133074 (Fig. VIII)

(SE ARM DESTROYED)

Location: 10mOD : wide flat gravel plain where Welland nears fen edge/
cursus traced to within 40m of present course of river
(unlikely to be original course); right angled

Details: 1710m x 35-56m (more regular SE section 51-56m)/MAJOR/NW-SE
(two arms: 126° & 116°)/NE - 1:19; SE - 1:16; overall 1:35
Distinct differences evident between differently aligned
arms of cursus. Probably two separate sites but presumptive
junction destroyed prior to aerial reconnaissance (RCHM 1960,
frontispiece). Referred to therefore as Maxey NW & SE and
not A & B. Also claimed extension to point beside Etton
causewayed end (Pryor 1982a)

Form: Maxey SE - ?Ai-ii/d. regular/align. straight/causeways
uncertain due to very shallow ditch and hence faint cropmarks.
Maxey NW - No terminal located (truncated by meandering course
of river?)/d. irregular/align. irregular - bowed somewhat
from straight/no certain causeways

Excavation: (Maxey SE only) Alexander 1957; Simpson 1967; Pryor 1981.
Ditch very shallow, flat bottomed (2.1m x 0.3m). No evidence

of directional silting, almost pure dark brown loam.

Completely silted up when overlain by round barrow (RCHM 60).

Line of 5 posts along outer edge of southern ditch in area of impinging hengiform pit circle. One pit of latter cut cursus ditch silts

Artefacts: None from certain cursus ditch. Group VI axe from pit 23 grazing outer edge of N. cursus ditch. Sherd of Mildenhall ware from pit circle overlying S. cursus ditch. Beaker sherds (unspecified) from claimed extension of cursus to Etton causewayed enclosure. Alignment of ditch not the same as Maxey SE, however, and various lengths of ditch indicated in area by a.p.s. (Pryor 1982a).

Assoc.mons: a) SE: 2 large rds (mound partially surviving within one - RCHM 60) - and 1 very small example of comparable size to pit circles. 1 of a pair of pit circles. Large class I henge surrounding round barrow 60. Small ovoid barrow within henge entrance.

NW: 2 within cursus confines, & another just intersecting northern ditch line.

b) Etton causewayed enclosure. 56 ring ditches (15 under 15m diameter predominantly in cursus - henge vicinity eg. site 69 hengiform from which Mildenhall and Grooved ware recovered)

c) Barholm causewayed enclosure and Grooved ware settlement. Barnack and Bainton extended oblong ditches.

Refs:	St. Joseph 1956	CUC BK 47-8	DA 41)	} SE ? terminal
	Alexander 1958	EU 57-8	ABJ42)	
	RCHM 1960	HB 1-9	AGB54)	
	Selkirk 1967	AGB 51-2		
	Pryor 1982a, 1982b	VBB 50-6		

10. Barford, Warwickshire SP288623-289625 (Fig. III)

(DESTROYED)

Location: 64mOD : flat upper gravel terrace/800m from R. Avon;parallel

Details: 185m x 35-40m/MINOR/NNE-SSW (20°)/1:5

Form: Bi/d. regular/align. straight/2 causeways confirmed by exc.
20 & 45m from southern end on opposed sides, others possible.

Excavation: Stephen Ball/Melvyn Card 1974: ditch shallow U profile
1.0/1.5m x 0.3/0.7m; slight evidence of internal silting.
Uncertainty regarding stratigraphic relationship of cursus
and abutting l.m.e.; latter probably only at secondary
stage of silting when cursus laid out.

Artefacts: Plain body sherd of black ware from top of uppermost silts
(similar fabric to Peterborough ware in a pit c.80m distant)

Assoc.mons: a) Oblong ditch (l.m.e.) - U plan open to SE
b) Hengiform (site A)/3/?4 ring ditches/2 square enclosures
(one Neolithic; other 1/A)
c) Longbridge, Warwick cursus/E. Neolithic material from pits
in town of Warwick/Possible causewayed camp at Hampton
Lucy

Refs: Webster & Hobby 1964 NMR SP 2862/2-5
Oswald et.al. 1969 /43-45
/94-98
SP 2862/60-1) Revealing clear
/70-1) separation
of cursus & l.m.e.
ditches.

11. Lechlade, Gloucestershire SP214002-212005 (Fig. IV)

Location: 75mOD : extensive flat plain of first terrace gravel/850m
from R. Thames; oblique

Details: 300m x 45-50m (incomplete)/MINOR/NNW-SSE (160°)/1:6+
 Form: Bi/d. regular/align. straight/no obvious causeways
 Excavation: Vatcher 1965: 3 trenches across SW ditch. Round bottomed
 V profile, 1.7/3.0m x 0.6/1.2m. Slight evidence of silting
 from interior. Humic layer in secondary silts akin to North
 Stoke. Two post holes revealed 0.9m from inner ditch edge:
 0.4/0.5m deep; post pipes 0.3/0.35m wide
 Artefacts: None
 Assoc.mons: a) 1 poss rd within terminal (NMR SP 2100/23)
 b) ?11 rds within ½km, one of irregular triple ditched
 hengiform type (CUC AM 29-30, AFV 19)/Grooved ware pits
 c.800m to north and south (Jones 1976)
 c) 3 causewayed enclosures
 Refs: Riley 1944 NMR SP 2100/23-4, 36, 48-52
 RCHM 1960 CUC DX 35-7
 Vatcher 1966 AFV 19, 20, 22
 Smith 1972 AYG 61
 Benson & Miles 1974 AM 29-30
 Jones 1976

12. Springfield, Essex TL725067-731069 (Fig. II)

Location: 25mOD : gently sloping gravel terrace/200m from R. Chelmer;
 parallel
 Details: 680m x 40-50m/MINOR-MAJOR/ENE-WSW (64/65°)1:17
 Form: Bi/d. regular/align. straight/one causeway approx. mid point
 of northern ditch.
 Excavation: Eastern and western terminals stripped. Hedges & Buckley
 1981-2: 14 substantial post holes (0.6m deep below subsoil
 surface) in an arc 26m in dia. located symmetrically within

eastern terminal - truncated by sewer pipe trench so original plan uncertain. Pits and features inside and outside timber setting containing "sooty" soil with burnt flints and pebbles and a small quantity of cremated animal bones

Artefacts: Eastern terminal: sherds of Mortlake bowl overlying primary silts of terminal ditch/Fengate & Beaker from internal features/possible saddle quern of Carstone from internal feature (Hedges & Buckley 1981)

Western terminal: plain Neo. bowl sherds (Hedges pers.com)

Assoc.mons: a) Small arc ditch around which southern cursus ditch aligned
b) 6rds/1 short ovate ditch axially aligned c.350m east
c) Large circular enclosure (claimed henge) with Saxon burials and artefacts

Refs: Hedges & Buckley 1981 CUC BXK 6-8

13. Sutton Courtenay/Drayton A, Oxfordshire SU486935-489941 (Fig. V)

Location: 58mOD : level gravel terrace; apparent northern end just before 6m drop to flood plain/1,000m from R. Thames; parallel (river bends)

Details: 750m x 70m (incomplete)/MAJOR/NE-SSW (30°)/1:10. Extension of cursus A beyond 800m to link with cursus B unlikely as:
i) Cursus ditches not revealed in north face of gravel pit during Leeds' early work (1923, fig.2) nor in subsequent investigation of ring ditch area.
ii) Small rd beyond pit N comparable to that beyond S terminal - projected cursus ditch line would pass through it but no evidence found. Two large rds can be paralleled beyond terminals elsewhere (cf. Scorton)

iii) Sharp drop (6m) to flood plain just beyond most northerly point to which ditches traced - no parallels for a single cursus crossing such terrain in river valleys.

iv) No other Bi cursus exhibits orientation change of sort that linkage with cursus B would necessitate - detached length of eastern Bronze Age ditch may however relate to cursus B, ineffectively linked to A.

Northern terminal therefore probably destroyed in gravel pit prior to investigation as Leeds suggested (1934b).

Form: Bi/d. regular/align. straight/causeway of unknown size located in side ditch by Leeds (1934a)

Excavation: Salvage work by Leeds 1923-1934: eastern ditch excavated at SU488939 - 2.4m x 0.9m. Noted that lacked red/brown fill that characterised other Bronze Age ditches and pits on site (Leeds 1934a). Possible further section located to north from which group VI axe came (Leeds 1927, 62) - removed by Leeds from working plan in Ashmolean and never included in published plans. Series of pits outside western ditch: Grooved ware from pits P, T & Sand greenstone axe from N; Late Neo flintwork from others. Apparently spatially related to cursus but interior destroyed prior to recording. Two large rds north of presumed end of cursus - collared urn sherds from peripheral pit in circle A; no primary burials located.

Artefacts: 1 oblique arrowhead, 14 scrapers & flint working debris/ ? Group VI axe from further section of ditch/ FN rusticated Beaker with inhumation possibly from eastern ditch where exposed in face of quarry on west side of Milton Road (see fig. 4.2).

- Assoc.mons: a) Rd assymetrically placed within terminal/large rd
(c.35m dia) almost on axial line near centre of cursus
+ smaller satellite (cf. Aston 1 & 2)/rd just impinging
on western cursus ditch.
- b) 14 rds clustering in vicinity of cursus/cropmarks of
small long barrow - 1km to NE
- c) Abingdon causewayed enclosure - 4.8km

Refs: Leeds 1923 Allen 1933/494-6; 1934/497-8
1927 NMR SU 4893/12/307-14
1934a 13/1-6
1934b 14/12-15
1947 19/138-140
Wainwright & Longworth, CUC AF 83-4;
1971
Benson & Miles, 1974, 62-3

14. Sutton Courtenay/Drayton B, Oxfordshire SU490941-492950 (Fig. V)

Location: 50mOD : flood plain - 1st terrace gravel overlain by
alluvium 0.6m deep/500m from R. Thames; parallel

Details: 650m x 70-80m (incomplete)/MAJOR/NNE-SSW (180°)/1:76+
Link with cursus A seems probable (CUC AFT89) but unlikely
that part of a single cursus

Form: No terminals located/d. fairly regular/align. slight
curvature/vestigial evidence of internal bank where overlain
by alluvium (Ox. Arch. Unit Newsletter 1981)

Excavation: Eastern ditch and interior investigated below covering
alluvium: patches of reddened (?burnt) stones on o.l.s.
both inside and outside; black humic layer in waterlogged
ditch produced a red deer antler, hazel nut fragment and twigs.

Artefacts: Peterborough ware (unspecified) from preserved o.l.s.
outside ditch/Beaker sherd (unspecified) from intersection
of cursus and overlying ditch

Assoc.mon: a) 1 very small rd (c.10m) abutting western ditch
b) 16 rds (13 concentrated just beyond traced northern
extremity; one a hengiform site)/cropmarks of small
long barrow
c) Abingdon causewayed enclosure

Refs: Benson & Miles 1974, 61 NMR SU4994/5/29
Oxford Arch. Unit CUC AFT 89
Newsletter 1981

15. Dorchester, Oxfordshire SU569958-581948 (Fig. VIII)

Location: 50mOD : level first terrace/c.350m to rivers Thames and
Thame; parallel and oblique

Details: 1600m x 60/65m; 43m at terminal (incomplete)/MAJOR/NW-SE
(128°)/1:25+

Form: All/d. regular/align. straight (very slight curvature)/
causeways in centre of terminal and along lateral ditches -
major gap coincides with site XI. Atypical arrangement
created on northern side of terminal by lateral ditch &
terminal ditch running beside each other. Terminal ditch
claimed as part of a separate enclosure (R.J.C. Atkinson
pers.comm)

Excavation: 1946-7 Atkinson; 1982 Chambers.

Ditch: NW extremity 1.5/3.6m x 1/2m

SE terminal 1m x 0.45m

Internal bank indicated by silting pattern at NW end. 1
small post hole on causeway in alignment with ditch

(Atkinson et.al. 1955, fig. 2).

S. cursus ditch cuts secondary silts of l.m.e. (site VIII) and is interrupted by triple ditch hengiform (site XI).

Four shallow vertical sided pits in a rectangular setting (site X) within cursus confines containing black soil, red burnt earth and fragments of animal bone.

Artefacts: Edge polished flint axe and leaf arrowhead from primary silts at NW extremity. Transverse arrowhead from SE terminal ditch. Ebbsfleet from upper silts at NW and from sites VIII & XI that antedate. Transverse arrowhead also from site XI.

Assoc.mons: a) Sites VIII & XI and 2 large rds intersect southern ditch line.

Axially placed within: site IV hengiform (causeway aligned along cursus); post circle and small rd. Further small rd off centre within terminal.

2 conjoined rds assymetrically placed within interior - collared urn cremations.

b) 4 hengiform sites (sites I, II, V, VI)/14rds - largely dispersed/Class IIa henge (Big Rings)

c) Drayton St. Leonard cursus/trapeziform ditch and triple ditched hengiform (1.2km) Overy Field

Refs:	Leeds 1934b	Allen 33/437-8, 455, 460, 477-8, 480
	Allen 1938	NMR SU 5795/21-3; 36-7; 44
	Atkinson 1951	SU 5794/14/49-54
	Atkinson et.al. 1951	15/52-56
	Chambers 1983	18/159

CUC CD 12-14; AFU 38; BMV 56

16. Winterbourne Stoke, Wiltshire SU103434-107436 (Fig. X)

- Location: 107mOD : summit of broad, flat topped chalk down/4km to R. Avon.
- Details: 410m (cross bank 200m from w. terminal) x 48m/MINOR/wSC - ENE (75°)/1:10
- Form: Aii (western enclosure)/d. irregular/align. straight/no causeways but open ended.
- Excavation: Richards 1983: Phase I western enclosure defined by shallow ditch (c.1.6m deep) with internal bank.
Phase II Earlier ditches recut and bank thrown up on outside of former eastern terminal. Side ditches extended 200m further east. Some backfilling to allow access to eastern section.
Later phases: two small recuts of cross ditch and stake fences set in fill.
- Artefacts: None of special significance
- Assoc.mons: a) None
b) Oval barrow or three conjoined rds placed 100m to west - burial under one of mounds with 3 leaf points and 1 lozenge point/30 or more round barrows/Amesbury cursus
c) Causewayed camp - Robin Hood's Ball/4 henges - Stonehenge, Coneybury, Woodhenge, Durrington Walls
- Refs: Hoare 1812 NMR SU 1043/5-6
Stone 1947 CUC GF 47
Atkinson 1960
RCHM 1979

17. Amesbury, Wiltshire SU 109429-137432 (Fig. X)

- Location: 107-91-111mOD : crosses shallow dry valley along gentle north facing slope from chalk down on either side/1,600m to R. Avon; right angled
- Details: 2730m x 100-150m (western terminal ditch 65m)/MAJOR/E-W (83-85°)/1:27
- Form: Bii/d. regular/slight align. change: N. ditch 200m from western end; S. ditch more major deviation 600m from west/opposed causeways 540m from eastern terminal recorded by Stukeley & Hoare but not revealed in a.p.s of ditch - possibly result of backfilling.
- Excavation: Stone 1948; Christie 1963; Richards 1983 (pers.com).
Trenches at western terminal and across southern ditch.
Side ditches 1.5/1.8m x 0.4/0.75m deep.
W. terminal ditch 2.5m x 1.4m deep
Berm 1.5m wide; internal bank 4.6m wide (residual chalk); surviving height 0.4m.
Possibly additional outer bank beside deeper terminal ditch; alternatively results from greater height of terminal bank.
- Artefacts: Late Neolithic flint work (Saville 1977). Bluestone fragment on chalk natural at ditch edge and sarsen rubber on ditch floor point to possibility of contemporaneity with phase Ib/II Stonehenge.
- Assoc.mons: a) 2rbs within western terminal: W. Stoke G 30 central cremation pit; Amesbury 56 primary inhumation with 3 rivet bronze dagger and ground stone macehead; secondary with "drinking cup".
b) 16lrbs & rds/long barrow transversely orientated 40m from east end/W. Stoke cursus/Stonehenge

c) Causewayed camp - Robin Hood's Ball/4 henges - Coneybury,
Woodhenge, Durrington Walls, Stonehenge

Refs:	Stukeley 1740	NMR SU 1142/4
	Colt Hoare 1812	1342/1-6
	Stone 1947	1343/4
	Christie 1963	1042/3-4, 7
	Saville 1977	
	RCHM 1979	

18. Gussage, Dorset ST969124-SU015156 (Fig. XII)

Location: 97-60-110-61-97m00: undulating chalk downland - transverses two parallel valleys (one with active stream) at right angles. SW terminal on crest of downs; NE false crest sited

Details: 5640m x 106m (Thickthorn terminal)/MAJOR/NE-SW (51-590)/1:54

Form: Biii/d. regular/align. straight - Thickthorn to Gussage Hill - sinuous section on descent to Down Farm then slight overall curve to Bottlebush terminal/no obvious causeways/internal bank.

Thickthorn terminal bank 9m across/1.2m high.

Excavation: 1983 Bowden et.al. Ditch sectioned at two points: flat bottomed U profile, 3m wide x 1.2m deep.

Artefacts: Plain Neo. wares - primary silts. Mortlake, Fengate and middle Beaker sherds - secondary silts. Deverel-Rimbury - ploughsoil.

Assoc.mons: a) Gussage St. Michael III transversely incorporated at approx. mid point/Pentridge cursus abutting northern terminal

b) 76 rbs/5lbs excluding G.S.M. III (above)/"settlement" pits with Peterborough & Grooved ware

c) Knowlton henges just beyond 5km.

Refs: (for Gussage and Pentridge cursuses)

Colt Hoare 1819	HLA 651
Heywood Sumner 1913	HSL/UK 62/263:2607-8
Crawford & Keiller 1928	58/3250:0095-101
Stone 1947	CUC LL10, 13; NS 97; ANC 39; ANL4
Atkinson 1955	NMR ST9913/5/231
RCHM 1975; 24-25	ST9914/8
Penny & Wood 1973	SU0015/1/327
Barrett et.al. 1981	SU0319/1
Bowden et.al. 1983	

II CHARACTERISTIC SITES

19. Inchbare A, Tayside N0608655-610657 (Fig. I)

Location: 48mOD : level gravel terrace south of West Water/250m
from river; oblique

Details: 240m+ x 23/30m/MINOR/NE-SW (55°)/1:9+

Form: Biii/northern pit line regular; southern irreg. - both
curve just before terminal/no certain gaps.

Pits c.1m dia - spacing 1-2m.

Assoc.mons: 1 rd 100m; round cairn 750m. Short lines of pits parallel
to cursus near W. terminal.

NB Immediately adjacent to Stracathro Agricolan camp &
fort but no known Roman parallels.

Refs:	St. Joseph 1976	NMR (Scot) AN/2855
	Maxwell 1983	AN/4012

20. Inchbare B, Tayside NO607658-610658 (Fig. I)

Location: 44mOD : level gravel terrace south of West Water/1:10+
immediately adjacent to river; oblique

Details: 240m+ x 25m/MINOR/NE-SW (65°)

Form: ?Bii/regular/gentle curving alignment/no certain gaps.
Pits c.1m dia; spacing c.2m

Assoc.mons: 1 rd 150m distant

Refs: Maxwell 1983 NMR (Scot) AN/2855
AN/4012
CUC BNG 079

21. Balneaves, Tayside NO605494-607497 (Fig. I)

Location: 42mOD : level gravel terrace of Lunan Water/600m from river;
right angled

Details: 350m+ x 30m/MINOR/NNE-SSW (35°)/1:12+

Form: Bii/pit lines irregular/slight curvature after septum/
septum 84m from NE terminal; same angle as terminal and
pits larger and more widely spaced than those on flanks
which are constricted towards it/no obvious gaps/
Pits c.1m dia and almost conjoined.

Assoc.mons: Douglasmuir posted enclosure 1.75km

Refs: Maxwell 1978

22. Maryton, Tayside NO667570-661570 (Fig. I)

Location: 16mOD : flat island of gravels beside tidal Montrose Basin;
land rises steeply to south/900m from present course of
river; parallel

Details: 550m+ x 60/81m (septum 480m from eastern end)/MINOR/
E-W (93°)/1:8

Form: Biii/northern ditch regular;southern irreg./align. straight/
broken cropmark of septum may represent causeways

Assoc.mons: a) 3rds approx. along axis + 1 pit circle (?round house)
Equidistant (c.10km) from Inchbare sites to NW and
Balneaves/Douglasmuir sites to SW

Refs: Maxwell 1983 CUC BQZ 93

23. Kinalty, Tayside N0356511-356513 (Fig. I)

Location: 79mOD : aligned down lower southern slopes of ridge
extending along Strathmore at watershed of Isla & S.Esk
river systems 3,800m from Dean Water

Details: 200m+ (110m to septum) x 27/30m/MINOR/N-S (175°)/1:1+
(southern enclosure 1:4)

Form: Ai (Aii/Bii septum)/W. side of S. enclosure very irregular;
pits defining southern enclosure close set whereas northern
lines more widely spaced and regular/alignment straight

Assoc.mons: Standing stone 1,000m

Refs: NMR (Scot) AN/2877

24. Hollywood A, Dumfries & Galloway NX949795-948799 (Fig. I)

Location: 23mOD : level but dissected sandstone terrace on northern
side of Cluden Water; separated from 12 Apostles Stone circle
(250m) by shallow dry coombe/400m from river; oblique

Details: c.350m x 38m/MINOR-MAJOR/NNW-SSE (156°)/1:9

Form: Biii/d. regular/align. straight (w. side bowed)/causeway
c.60m from terminal/possible trace of terminal bank surviving

Assoc.mons: a) None
b) Cursus B/12 Apostles Stone circle 250m
c) Fourmerkland pit defined site (3km)

Refs: NMR (Scot) DF/2311 - 13
 2317 - 13
 2409
 2411 - 12

25. Holywood B, Dumfries & Galloway NX949799-951802 (Fig. I)

Location: 23mOD : same level ground as cursus A/900m from Cluden
 Water; oblique (nr. right angled)
 Details: c.400m x 30-32m/MINOR/NNE-SSW (26°)/1:13
 Form: Ai/d. irregular/align. straight/opposed causeways (c.10m
 wide) 150m from terminal/cropmark pits spaced 5/6m apart
 and set in a continuous line 2/3m from inner ditch edge
 Assoc.mons: a) None
 b) Cursus A. c.100m
 Twelve Apostles Stone circle 600m - cursus aligned on it
 c) Fourmerkland pit defined site

Refs: NMR (Scot) DF 2314 - 17
 2409 - 10

26. Rudston B, Humberside TA081669-094675 (Fig. XI)

Location: 48-27mOD : SW terminal sited off crest of chalk wold; cursus
 follows dry valley until lost under Rudston village/last
 recorded point 300m from Gypsy Race; right angled
 Details: 1550m x 65/80m (incomplete)/MAJOR/NE-SW ($61-65^{\circ}$)/1:21+
 Form: Biii/ditches: s. fairly regular; n. irregular/straight
 align. until elbow at 1200m/no causeways
 Assoc.mons: a) ?Later enclosures/fields attached to former terminal bank
 b) 11rds - one adjacent to terminal with irreg. internal
 circuit of pits/monolith 350m

c) Maiden's Grave henge 3km.

Refs: Dymond 1966 CUC ACK 10-12

27. Longbridge, Warwick SP269618-269621 (Fig. III)

Location: 47mOD : flat first terrace just above flood plain/600m
from Avon; parallel

Details: 270m x 32m/MINOR/N-S (10^0)/1:8

Form: Bi/d. regular/align. straight/no certain causeways

Assoc.mons: a) Rd immediately adjacent with possible marks of irreg.
internal pits - incorporated in D shaped enclosure
b) Possible pit circle c.100m
c) Barford complex 1.75km; Hampton Lucy ?causewayed encl.
5.5km.

Refs: Webster & Hobley 1964 NMR 2661/16-24

28. Charlecote, Warwickshire SP268563-268565 (Fig. III)

Location: 40mOD : flat gravel terrace/900m from R. Avon;parallel

Details: 200m x 28m (incomplete)/MINOR/N-S (5^0)/1:8+

Form: Terminals not certainly located (Bi Webster & Hobley 1964)/
d. regular/align. straight/no causeways

Assoc.mons: a) Rd c.14m dia. with central pit, intersects side ditch
b) 2 rds across stream to south
c) Hampton Lucy ?causewayed enclosure 1.5km. Oblong ditch
1.4km. Rd cemetery with hengiform 2km.

Refs: Webster & Hobley, 1964 NMR SP2656/4-8

29. Fornham All Saints, Suffolk TL829688-841672 (Fig. IX)

Location: 25mOD : flat terrace of R. Lark/200-400m from river; parallel

Details: 1580 x 32m (Fornham section); 330 x 25m (Hengrave section)
 Overall length 1910 /MAJOR/NNW-SSE to NE-SE (166°/146°/
 132°/137°)/1:63

Form: Aii/d. regular (except perhaps SE terminal area)/aligned
 in straight sections/causeways: possibly 2 roughly opposed
 c. 25m from Fornham terminal; one possible 45m from
 Hengrave terminal.

Assoc.mons: a) Rd surrounding irreg. arc ditch intersects SE terminal.
 Cursus intersects causewayed enclosure.
 b) 10 rds in all (triple ditch hengiform, penannular ditch
 and rd with pits adjacent to southern terminal)
 c) Rds & rbs dispersed on permeable Breckland soils

Refs: St. Joseph 1964 CUC ADS 60-69
 Martin 1981 CCQ 53-60
 BXG 71-87
 BXY 105-9
 K 17-2 252-3
 SAU DG 28, 30
 FAS 5
 CY 15-16

30. Cardington (site E), Bedfordshire TL089499-091498 (Fig. II)

Location: 23mOD : wide flat terrace extending to flood plain/crop-
 marks point to former presence of a stream sweeping in
 an arc around cursus: 700m from R. Ouse; oblique

Details: 182m x 57m/MINOR/NW-SE (136°)/1:3

Form: Bi/d. regular/align. slightly bowed/opposed causeways at
 mid point of side ditches

Artefacts: Polished flint axe found over site (Beds. S.M. index 299)

Assoc.mons: a) None

b) 3/24 oblong ditches; 16 rds; 1 triple ditched hengiform

c) Causewayed enclosure. Concentration of Neo/Beaker material from Kempston/Elstow area (exposed by urban development)

Refs: Field, 1974, 61, 68 CUC ADO 70-1
& pl.76 BJJF 42-3; 47-8
BNJ 76-7
BXU 97-101
K17 AM1-5

31. Biggleswade, Bedfordshire TL194467-197466 (Fig. II)

Location: 23mOD : level gravel terrace/600m from R. Ivel; oblique

Details: 380m x 75m (incomplete)/PROBABLY MAJOR/WWN-ESE (104°)/1:5+

Form: Ai/d. regular/align. straight/probable causeway c.20m wide
in side ditch 50m from terminal; other gaps less certain
in faint cropmarks

Assoc.mons: a) None

b) 4 rds (1 double with inner penannular ditch)

Refs: Field 1974, 71 NMR TL 1946/2/325-6
3/448-451
6/127-8

32. Stratford St. Mary, Suffolk TM046345-049343 (Fig. II)

Location: 7mOD : gently sloping terrace/650m from R. Stour; parallel

Details: 295m x 65m/MINOR/NW-SE (126°)/1:45

Form: Bi but angles rounded/d. regular/align. bowed (N. ditch
8m from straight; S. ditch 3m)

Assoc.mons: a) None

b) 5 rds including 1 large penannular example & irreg.
double ditched site

c) ?Henge - probable windmill mound (Martin 1981)

Refs: Hedges & Buckley 1981 CUC ASW 25 BPY 28
Martin 1981 ADR 94 ZD 5-11
AOS 64 ZL 83
CEN 70
NMR 0534/2/411

33. Buscot B, Oxfordshire SU217989-222985 (Fig. IV)

Location: 76mOD : flat flood plain of Thames/200m from river; right angled

Details: 250m (extended to 630m:1984) x 55m (incomplete)/NW-SE
(125°)/1:13

Form: No terminals/d. regular/align. straight

Assoc.mons: a) 2 rds intersect N cursus ditch - one possibly double
b) Arc or small rd adjacent. 11 other rds within 1km.

Buscot A (extended oblong ditch) - 200m SW & aligned on B

Refs: Benson & Miles 1974, 28-9 NMR SU 2198/3/431-3

4/1435-7

NMR 1984 (pers.comm R. Featherstone)

34. Drayton St. Leonard, Oxon. SU601971-602972 (Fig. V)

Location: 52mOD : extensive plain of first terrace gravels at edge
of flood plain/250m from R. Thame; near right angled

Details: 170 x 30m (incomplete)/MINOR/NNE-SSW (27°)/1:6+

Form: Bi/d. regular/align. straight/no causeways

Assoc.mons: a) Double ditched rd within cursus
 b) 2 rds and D shaped ditch
 c) Dorchester henge/cursus complex

Refs: CUC AFU 55 - 9
 BTU 33

35. Benson, Oxfordshire SU624910-629919 (Fig. V)

Location: 61mOD : level gravel terrace - NE terminal near junction
 with heavier soils/1,000m from R. Thames; oblique

Details: 1090m x 65m/MAJOR/NE-SSW (30°)/1:17

Form: Bi/d. regular/align. straight/wide causeway 30m from NE
 end/ditch crossing S. terminal at right angles, with
 possible parallel ditch, of uncertain form and status

Assoc. mons: a) None
 b) 2 rds + ovate ditch
 c) Dorchester henge/cursus complex. N. Stoke linear ditches
 and cemetery

Refs: Leeds 1934a Allen '33 145-7/'34 151-2
 Riley 1944 NMR SU6291/4-7
 Benson & Miles 1974 CUC CK 36-7
 DX 1-2
 DZ 71-2

36. Sonning, Berkshire SU765759-767759 (Fig. V)

Location: 40mOD : sloping terrace/700m from Thames/right angled

Details: 250m x 35m (incomplete)/MINOR/E-W (86°)/1:5+

Form: Bi/d. regular/align. straight/apparent causeway in terminal
 ditch

Assoc.mons: a) None
 b) Adjacent 2 rect/sub rect. enclosures, 1 rd and an oblong ditch; 4 rds more distant
 c) Dubious causewayed enclosure (Eye & Dunsden: Palmer site 36)

Refs: Anon 1961 CUC YO 3 ADN 16 ARW 52
 Slade 1964 NMR SU7676/2/75-7
 Gates 1975 3/22-5
 5/238-9

37. Pentridge, Dorset SU015156-040192 (Fig. XIII)

Location: 97-110-82-107mOD : undulating chalk downland/springs of R. Crane c.700m; parallel to stream, crosses dry coombe
 Details: 4290m x 102m (82m NW terminal)/MAJOR/NE-SW (31^0-43^0)/1:42
 Form: Biii/d. regular/align. straight for $\frac{2}{3}$ of length: southern section sinuous, northern section curved/opposed causeways (12m & 3m wide) 750m from NE end
 Assoc.mons: a) Pentridge IV longbarrow incorporated in bank
 b) 67 rbs; 2 lbs
 c) Knowlton henges just beyond 5km
 Refs: As for Gussage (18)

III POSSIBLE

38. Bannockburn, Central Region NS817900 (Fig. I)

Location: 46mOD : undulating top at the edge of wide valley/2.8km to R. Forth; parallel
 Details: 46m x 36m (incomplete)/WNW-ESE (100^0)
 Form: A1/pits c.1.5m dia. set c.0.5m apart
 Assoc.mons: Possible pit setting beyond terminal

Refs: NMR (Scot) ST 2916
 Comment: Insufficient traced for certainty but width and form characteristic - possibly related to nearby promontory defences, however.

39. Copt Hewick, North Yorkshire SE358726 (Fig. I)

Location: 55mOD : flat plain of terrace gravel dissected by small valley along line of possible extension
 Details: 100m x 40m (incomplete)/N-S (174°)
 Form: Bii/d. regular/align. straight/probable offset terminal causeway 40m from end
 Assoc.mons: Equidistant between Hutton and Cana class IIa henges (900m). "Cursus" orientation identical to causeways of Cana henge, and close to those of Hutton, but aligned on neither.
 Refs: N. Yorks. S.M.R. Copt Hewick 26
 Comment: If a cursus, either of very limited length or crosses a small valley

40. Fimber, Humberside SE894610-907610 (Fig. XIV)

Location: 80mOD : floor of dry valley in Wolds
 Details: 800m x 23/35m/E-W
 Form: Irregular ditches (one more irregular, as if laid out by offsets: cf. Milfield and North Stoke)
 Assoc.mons: ?Trapezoidal enclosure (30m x 15m) apparently set obliquely and incorporated in northern ditch
 Refs: Moorhouse 1977, 1
 Comment: Little to distinguish it from other trackways but layout reminiscent of Milfield avenue and 1 rb and 5 rds lie in cursus fashion just beyond proven western extremity (SE891610).

Possible, however, that relates to "old coach road"
(Loughlin & Miller, 1979,91).

41. Corwen, Clwyd SJ062435 (Fig. III)

Location: 137mOD : flat floor of steep sided valley of R. Dee in
Berwyn Hills/600m from river; parallel to main river

Details: 120m x 27m (21m terminal) (incomplete)/N-S (14^0)

Form: ?Ai/ d. fairly regular/align. straight/eastern ditch incurving
to terminal

Assoc.mons: Small rd (10m. dia) beside apparent terminal; rb axially
aligned 400m S

Refs: Jones 1979 Photos G.D.B. Jones

Comment: Inturn towards ?terminal characteristic, as is adjacent r.d.

42. Ryton, Warwickshire SP404744 (Fig. III)

Location: 76mOD : terrace gravels, sloping valley side/1000m from
R. Avon; parallel

Details: 140m x 28m (incomplete)/N-S (175^0). Additional parallel
lines cross end of site (100m x 30m) NW-SE (60^0)

Form: Probable Bi/d. regular/align. straight.

Assoc.mons: Approx. aligned on round barrow (Knighton Cross): 500m to S

Refs: Webster & Hobley 1964, site 99, 7, 20 & pl. IIIc
Warwicks SMR 4074/a-c

Comment: Cropmarks faint, and intersecting parallel lines are of
similar width - possibility that partial marks of field
drainage grid.

43. Kempston, Bedfordshire TL035477 (Beds.SMR); TL030489 (RCHM 1960)

Location: Precise area uncertain (Beds. SMR location based on gravel
pit working at date of discovery). General area: 30mOD :

wide flat gravel terrace of R. Ouse

Details: 92m length of ditch interrupted by causeway/NE-SW/opposing
ditch unlocated

Form: W/MR Beaker and inhumation of female at separate points
along ditch

Assoc.mons: Area rich in Neo/Beaker finds
5.5km to Cardington cursus and causewayed enclosure.

Refs: Kuhlicke 1949-50
Thomas 1956

Comment: Burial and fine Beaker imply non utilitarian function.

44. Shillingford, Oxon. SU598928-602925 (Fig. XIV)

Location: 47mOD : flat terrace of Thames/500m from river; oblique

Details: 480m x c.30m/NW-SE

Form: Interrupted length of 2 irregular parallel ditches

Assoc.mons: Equidistant (3km) from Dorchester and Benson cursuses

Refs: R.J.C. Atkinson pers. comm Allen 1067
Benson & Miles 1974, map 40

Comment: Little to indicate that ditches of special status but rather
irregular and widely spaced for a roadway. Possibly
related to original route of A423 through Shillingford.

45. Middleton, Essex TL877402 (Fig. XIV)

Location: 29mOD : terrace of R. Stour/300m from river; right angled

Details: 180m x 50m (incomplete)/ENE-WSW

Form: B1/d. regular/align. change

Assoc.mons: Rd adjacent to terminal

Refs: CUC Index - "possible cursus" CUC ZC 56-8

Comment: Alignment change not unparalleled (cf. northern end of Rudston A) but ditches splay towards open end and course takes site onto higher terrace.

IV DOUBTFUL

46. Milfield, Northumberland NT943323-942498 (Fig. XV)

On level gravel terrace of R. Till running NNW-SSE. A pair of very irregular parallel ditches (eastern most irreg) associated with the Milfield complex of henges (1750m x 15-30m). They commence at south by segmented Marleyknowe henge; curve around this, are constricted to pass through a class II henge (Coupland) and curve around a class I site (Milfield South). Probably the latest feature of the ritual complex (cf. final section of Stonehenge avenue).

Possibility exists of an undiscovered northern terminal (cf. Hasting Hill) but relationship to Coupland henge unparalleled in cursus architecture.

Refs: Harding 1981 CUC BDB 56-7 BJU 94-6 BDE 35-6

47. Duggleby, North Yorkshire SE879669-892670 (Fig. XIV)

Along sloping valley side near source of Gypsey Race. Irregular parallel ditch lines: 1200m x 160m. E-W (85°). Aligned around outer causewayed ditch of Duggleby Howe.

As a potential cursus atypical in: a) width, b) irregular, misaligned incorporation of earlier monument, and c) extension beyond apparent terminal.

Refs: N. Yorks. Arch. Unit S.M.R.

48. Ettington, Warwickshire SP277504-277502 (Fig. XIV)

On hill slope of white lias brash - heavy soil.

Two irregular parallel ditches (240 x 17m:NW-SE) intersecting a pear shaped double ditched enclosure. Claimed as henge and cursus - neither convincing.

Refs: D. Atkinson & D. Hooke 1978 NMR SP 2750/1-9

49. Clanfield, Oxon. SP279017 (Fig. XIV)

Gravel terrace of Thames. Parallel ditches c. 180 x 30m; N-S. No terminals. Aligned on double rd. Little to distinguish site from other pairs of ditches.

Refs: Benson & Miles, 1974, map. 7 CUC VL 79
NMR SP 2801/1

50. Titchmarsh, Northants. TL016798 (Fig. XIV)

On Cornbrash, parallel ditches c. 500m x 75m. Part of a complex of ditches, some of which appear to run from the site. RCHM plot now incomplete.

Refs: H. Case pers.comm. NMR 1080/1/60
RCHM 1975, 98, fig.107 2/177

51. Felmersham, Bedfordshire TL004588 (Fig. XV)

Gravel terrace adjacent to R. Ouse. Southern end of rectangular enclosure 80m x 40m - barred from extension beyond 200m by river. Double rd adjacent. Unlikely cursus even of Cardington type and over large for Fengate type enclosure.

Refs: K. Field 1974, pl.7a & pers. comm.

52. Eynesbury Hardwicke A, Cambs. TL181582 (Fig. XV)

Gravel terrace of R. Ouse. Rectangular enclosure 200m x 60m with open end at right angles to river. Almost certainly part of a larger complex of fields.

Refs: K. Field, pers. comm.

53. Eynesbury Hardwicke B, Cambs. TL184584 (Fig. XV)

Adjacent to A irregular parallel ditches c. 200 x 15m. Droveaway.

Refs: O.S. Record Card CUC SJY 10

54. Manea, Cambridgeshire TL478928 (Fig. XV)

Parallel ditches c. 370m x 12m - acute bend at midpoint in an area of densely clustered small rds (?domestic). Almost certainly a droveaway.

Refs: Camb S.M.R. CUC BBY 63 BES 76-9

55. Mount Bures, Essex TL911332-913331 (Fig. XV)

Gravel terrace of R. Stour. Parallel ditches 230m x 20m (NW-SE). Rds cluster around and 3 totally fill interior - atypical of configuration re cursuses.

Refs: Hedges 1980, 29. EAU 93 15

56. Wormingford, Essex TL922328-924325 (Fig. XV)

c.800m SE of 55 (above) on slightly different alignment - possibly linked. Parallel ditches 350 x 30m (NW-SE). Rds cluster on either side; two just intersect. Patterning typical of cursuses but presence of other parallel ditches makes it likely that site is actually a trackway.

57. Lion Point, Clacton, Essex cTM170135

Parallel ditches (c.100m apart) on submerged land surface;
2 sets cross at right angles. No artefacts later than
Beaker from ditches and suggested by Phillips that
related to Barnack and Thames valley cursuses. Probable
parallels are, however, with Fengate fields.

Refs: Warren et.al. 1936

58. Great Holland, Essex TM205189 (Fig. XV)

Fairly regular parallel ditches c.400 x 20m (N-S). Small
penannular ditch within "cursus" and reminiscent of Bures
St. Mary A but comparable rds adjacent - ?domestic.
Probable road/trackway.

Refs: Hedges 1980, 29.

59. Idmiston, Wiltshire (c.SU1749 : precise location now uncertain owing
to presence of Boscombe Down airfield)

Two parallel banks and ditches running over Boscombe Down
Colt Hoare & Crawford: c.750m x 24m (crest to crest: Crawford)
/29m (Colt Hoare). Ditches on inside and no evidence of
terminals.

Refs: Hoare 1812, 220 and map facing 196
Crawford - letter to R.J.C. Atkinson dated 8.7.1956.

60. Abingdon, Oxon. SU494965 (Fig. XV)

Rather irregular parallel ditches crossing terrace gravels -
300m x 30m. Northern ditch inturns abruptly to apparent
terminal and rd enclosed. Unlikely site as i) terminal
created by right angled near junction with isolated length

of ditch ii) inturn uncharacteristically sharp
iii) enclosed rd atypical on small site.

Refs: Benson & Miles 1974, map 30 NMR SU4996/2

Allen 33.11; 33.12

61. Goring, Oxon. SU606798 (Fig. XV)

Pair of diverging straight ditches (250m x 40/60m)
running across terrace gravels at right angles to river.
2 rds intersect one ditch. Open termination against
enclosure and non parallel plan renders site very doubtful -
parallels for rds intersecting trackway/field boundaries
plentiful (eg. Gates 1975, map 7).

Refs: Benson & Miles, 1974, 26, map 6.

V DISCREDITED (by excavation or clear indication of opposed date
and purpose)

62. Hunting Tower, Perthshire NO087254

Roadway c.25m wide -14th/15th century pottery in ditches,
in underlying alluvium and under earlier cobbled road
surface.

Refs: Barclay 1977, 30 CUC ACD 30 AMC 53-4

63. Catton Humberside SE716530-721534

Parallel ditches, 30-50m apart with an almost right angled
bend, ending just short of class II henge. Extreme
alignment change is completely without parallel, undoubtedly
related to adjacent 1/A-R/B settlement.

Refs: Moorhouse 1976 O.S. vertical

Loughlin & Miller 1979, 86

64. Willington, Bedfordshire TL112485-117485

Parallel and very straight cropmarks (c. 20m apart) passing through a tangle of settlement enclosures. Claimed as a cursus on basis of early photographs (CUC GW35-8). More recent coverage reveals identical marks meeting former at an angle - junction of roads.

Refs: Beds.Arch.J. I,95 CUC AGA 37-8 AEF 60-1
R.J.C. Atkinson pers.comm BXU 99

65. Shepreth, Cambs. TL387468-393471 (Fig. XVI)

Interrupted marks of straight parallel ditches c.560m x 16m. Almost certainly a road, probably originally extending from present T junction where they appear to end.

Refs: R.J.C. Atkinson pers.comm. CUC CO 52

66. Kedington, Suffolk

Adjacent to causewayed enclosure. One side a recently surviving field boundary and the other (sharper cropmark) probably also recent.

Refs: Hedges & Buckley 1981,15 SAU JM 18-19
Martin pers.comm.

67. Stoke by Nayland, Suffolk TM031353 (Fig. XV)

Parallel ditches 200m x 40m in symmetrically intersect double ring ditch. One ditch represents a recent field boundary.

Refs: Hedges 1980, 29
Martin pers.comm.

68. Dedham, Essex TM064326 (Fig. XVI)

Very straight parallel ditches c. 200m x 15m intersecting settlement enclosures - roadway.

Refs: Hedges 1980, 29

69. Lawford, Essex TM093301-097303 (Fig. XVI)

Very straight parallel ditches (c.350 x 15-20m) claimed as a cursus - Roman road leading to Colchester.

Refs: Erith 1971b, site C

70. Castle Coombe, Wiltshire ST838793-84292 (Fig. XVI)

Parallel ditches (300m x 15m) running directly up to Fosse Way - a spur road.

Refs: CUC Index CUC BF 33-6 ABF 35

71. Dorchester, Overy, Oxon. SU588943-593939 (Fig. XVI)

535m x 20m - straight parallel ditches leading to massive oblong enclosure. Claimed as a cursus but no parallels exist for a cursus leading to a larger site. In addition comparable parallel ditches cross at an angle - both clearly roads/trackways associated with Roman town of Dorchester.

Refs: RCHM 1960 NMR SU 5894/14/302-11
17/316-325
SU 5994/14/302-11

72. Englefield, Berks. SU626703-626712 (Fig. XVI)

Straight parallel ditches 1,000m x c.12m. Limited coverage suggested a cursus (CUC CX 052) - now clear

that a comparatively recent roadway.

Refs: R.J.C. Atkinson pers.comm.

Gates 1975, map 7.

73. Ufton Nervet, Berks. SU618695-620691 (Fig. XVI)

Very straight parallel ditches 500m x 20m near a group of rds. Pair of narrower parallel ditches run off at an angle to settlement enclosure. "Cursus" represents Roman road from Calleva running toward ford of Kennet.

Refs: RCHM 1960

CUC VP 69 ADN 40

Gates 1975, map 8

BCH 77

74. Stanwell, Surrey TQ053746-044777 (Fig. XVI)

Very straight parallel ditches 20m wide partially traced over 3.6km, crossing en route rivers Colne and Wraysbury. Excavated 1981: ditches 3.70m wide and 1.20m deep - a few sherds of Late Neo pottery from upper silts (?residual) No parallels for cursus of this length and width; narrow sites invariably have rather irregular ditch lines. Almost certainly a gravel surfaced spur running from Pontes-Londinium road (to Gerrards Cross and Fulmer potteries?).

Refs: O'Connell Archaeology in Surrey 1981 & pers.comm.

75. Bedfont, Greater London TQ075738 (Fig. XV)

Two parallel ditches and two circles recorded by Copley. Claimed as cursus (Dennington et.al.) but fuller survey reveals part of complex of fields.

Refs: Copley 1958, 284

Dennington et.al. (undated)

Longley 1976, fig. 12

Category V is composed almost entirely of sections of road (mostly Roman) that have been claimed on one or more occasion as cursuses. Whilst according with the popular concept they can in fact be readily distinguished; invariably they are of considerable length and defined by closely parallel, even ditch lines whereas extended oblong ditches (the only sites in the cursus continuum to fall within the low width parameters) are rarely longer than 200 metres and characterised by rather irregular ditches. Heavily elongated but comparatively narrow sites with even ditches need therefore to be treated with great reserve when future sites are being identified.

By contrast category IV (doubtful) sites are markedly heterogeneous. Their sole unifying characteristic - parallel ditches - is insufficient to confidently differentiate them from trackways, utilitarian enclosures, segments of partially located field systems and fortuitously juxtaposed ditches. Identification seems often to have been prompted by a close association with ring ditches. As has been demonstrated this is not an invariable cursus feature.

ELONGATED DITCHES

Entries are briefer than for cursuses owing to the limited size of the sites and their more localised importance: none deviate from a straight alignment, limited size makes it impossible to confidently compute azimuths from aerial photographs and siting is almost exclusively on gravel terraces or, in parts of East Anglia, flat expanses of glacial sand and gravel. The following format has been employed, therefore:

KEY LOCATION/DIMENSIONS/ORIENTATION/TERMINAL/

EXAMPLE 40mOD: GT (gravel terrace)/100m x 20m/E-W/Ai/

GSG (glacial sand &
gravel)

KEY DITCH FORM/CAUSEWAY/OTHER FEATURES/ EXCAVATION/

EXAMPLE irregular/"corner"/marks of palisade/Exc. 1966 Ditch V profile 2mx1m/

KEY ADJACENT OR ASSOC. MONS (UP TO 1km)

EXAMPLE Rd beside terminal

To avoid subjective selection of data all sites meeting the elongated ditch criteria have been included; only those with internal rings or waisted ditch plans have been excluded as certain multiple barrows. Equally long barrows with ditches of encircling or U plan have been accepted unless these exceed 4-5m in width (eg. Giants Hills I & II, Julieberries Grave and Holdenhurst with ditches 5-8m wide).

Sites located by P. Eveson on the Lincolnshire Wolds are omitted. They will be the subject of separate publication. Most appear to represent ploughed out encircling quarry ditched long barrows of Skendleby type.

I EXCAVATED OR CHARACTERISTIC 'CROPMARK' SITES

a) Extended oblong ditches

76. Llandegai, Gwynedd SH594710-c.597710 (Fig. III & XVII)

41mOD : GT/200+m x 14m (incomplete - probably not extending beyond cricket field c.400m)/NW-SE(110°)/Ai/irregular/multiple causeways in terminal; one in lateral ditch/excavation 1967: ditches up to 3m wide x 1.3m deep; silted from interior; no features/small hengiform (6m dia) nominally aligned (site E) and major class I and II henges on either side. Overlain by medieval cemetery.

Refs:St. Joseph 1961

CUC ABO 29 AOT 72-78 AHS 79-84

Houlder 1968

BUB 78-79 AJE 45-50

77. Welshpool, Powys SJ215046-218049 (Fig. III & XVII)

70mOD : flat floor of steep sided Severn valley in uplands/380m x 12m (incomplete)/NNE-SSW/no terminals located/irregular (c.m. c.2m wide)/multiple breaks indicated/NE extremity : large rd in alignment; small rd and pit circle on either side (50-130m distant).

NB: It is possible that this site represents traces of a road but the relative irregularity of the marks and their termination in the middle of fields renders this unlikely.

Refs:St. Joseph 1980

78. King's Bromley, Staffs. SK116157 (Fig. VI & XVIII)

65mOD : GT/110m x 16/25m (incomplete)/ESE-WNW/Ai/pits c.1-2m dia, spaced 2-3m: southern side regular and straight; northern irregular and swelling/small arc ditch (c.10m) enclosed and abutting southern pit line near terminal (cf. Fourmerkland); 2 rds adjacent

Refs:

CUC BTO 88

79. Bainton, Cambs. TF099066 (Fig. II & XVII)

15mOD : GT/215m x 18m; small western enclosure 20m x 14m/E-W/Bii/large pits (c.2m dia) spaced 3/6m apart defining extended site except at junction with small encl: 2 large pits only there ?entranceway.

Northern side irregular; southern incomplete/no significant associations

Refs: St. Joseph 1973

V - BB79

80. Barnack, Cambs. TF085066 (Fig. II & XVIII)

15mOD : GT/118m x 24/28m/NE-SW/Bi/regular ditch lines but "offset" ditch irregularly aligned/no causeways/integral feature of nucleated cemetery of at least 10rds

Refs: Phillips 1935a

NMR TF0806/4, 8, 11-16

81. Cople, Bedfordshire TL095500 (Fig. II & XVII)

23mOD : GT/125m x 15m (incomplete but no longer than 200m)/NE-SW/Ai/irregular/no causeways/symmetrically intersected at NE terminal by more substantial cropmark of rd (?oblong ditch laid out on berm); rd axially aligned at other end but relationship obscured by railway line. Part of a large oblong ditch/rd cemetery

Refs:

CUC BNJ 72, 76-7 BBY 24

BCO 23 K17 AM 1-5

82. Bures St. Mary, Suffolk TL918332 (Fig. II & XVII)

18mOD : GT/190m x 22m (incomplete)/E-W/Bii/fairly regular/offset terminal causeway/small incomplete rd (c.8m dia) axially placed near causeway; intersecting oblong ditch doubtful (see below 157)/stands in isolation on opposite bank to rd cemeteries and putative cursuses at Wormingford and Mount Bures. Possibility exists that related to adjacent sewage works.

Refs: McMasters 1971, 7-8

CUC BCT 32-5 BPY 28 BXA 94-7

Priddy 1981, fig. 40

BZK 66

83. Stratford St. Mary, Suffolk TM053342 (Fig. II & XVIII)

7mOD : GT/110m x 25m/E-W/Ai/fairly regular/no causeways/rd near western terminal; cursus and rds 300m west

Refs:McMasters 1971, 15-16 CUC ZD 9 BPY 28

Martin 1981, 67 NMR TM0534/2/410-2

3 - 11

84. Buscot A, Oxon SU216986 (Fig. IV & XVII)

76mOD : GT/150m x 18m (incomplete)NE-SW (47°)/Bi-ii (corners rather rounded)/fairly regular/no causeways/1 large rd (c.60m dia) just beyond terminal; 3rds aligned close to one side; double rd and cursus 200m NE.

Refs:Benson & Miles 1974, map 2 CUC CBO 40-42

(shown as a trackway - no r.d.s.)

85. North Stoke A, Oxon. SU611856-612859 (Fig. V & XVII)

(EXCAVATED)

48mOD : GT/200m x 12m/N-S (10°)/?Bii northern end with atypical "horn" ditch lines or open termination against three sided sub.rect. enclosure (Case 1982a); open termination against transversely aligned enclosure at southern end/ditches very irregular/no causeways/partial axial parch marks suggest former mound/excavation 1950-2: ditches narrow and deep (1m - up to 2.5m at weathering cone - x 2m deep); infiltration channels initially suggested pits on ditch floor; no evidence of directional silting; c¹⁴ from antler crown on ditch floor 2722bc \pm 49 (BM 1405)/integral feature of nucleated rd cemetery with at least one hengiform site.

Refs:Case 1982a

Allen 869 (showing parching)

NMR SU 6185/3-21

b) Oblong ditches

86. Douglasmuir, Tayside NO615482 (Fig. I & XVIII)

37mOD : GT/69m x 19m (septum at 32m)/N-S/Bi-ii/pit lines constrict towards central division (?earlier terminal)/no causeways/exc. 1979-80 posts in pits subject to burning; large central post hole on axial line in N. enclosure (post pipe 1.0m dia/0.8m deep: several replacements); c¹⁴ from one of side posts 2868 ± 55bc (no ref) possibly rather too early as structural; three shallow pits outside containing carbonised hazel nuts and pottery/stands in isolation

Refs:Kendrick 1980

CUC BED 31

87. Fourmerkland, Dumfries and Galloway NX915800 (Fig. I & XVIII)

30mOD : GT/60+m x 20/24m (incomplete)/E-W/Ai/irregularly spaced pits/ small rd (c.10m dia) bisecting southern arm near terminal.

Refs:

NMR (Scot) DF 2091

88. Ewart, Northumberland NT955318 (Fig. XVIII)

47mOD : GT/50m x 20m/N-S/Aii/regular/?causeway created in southern terminal by atypical double ditch/class II hengiform (c.20m dia) 150m away; both sites contained within near parallel pit alignments (130-200m apart) from which Grooved ware recovered (160m distant); Grimston and Peterborough ware from pits dated 3280bc ± 150 (HAR 877) and 2130bc ± 130bc (HAR 1451) at Thirlings (350m distant).

Refs:Miket 1976, 128, pl.7II

CUC BDB 56 BJV 4-5 BJY 98-9

1981, fig. 1

89. Lockington, Leicestershire SK469287 (Fig. VI & XVIII)

31mOD : GT/100m x 18m/NE-SW/?Aii/vague cropmarks - ?irregular/round

barrow c.300m (barbed and tanged arrowhead, knife dagger and bronze awl)

Refs:

CUC BR 53-4

90. West Rudham, Norfolk TF 810254 (Fig. XIX)

(EXCAVATED) (EARTHWORK)

74mOD : GSG/63m x 20m/NNE-SSW/Aii/slight southern 'annex' ditch; wider main ditch/two slight "gang" causeways at junction of two ditches/ excavation 1938-9 - turf built barrow capped by gravel from main ditch; no capping in area defined by annex ditch; platform cremation just within southern end of main ditch. Main ditch rounded V profile 3m x 1m; annex ditch 0.9/2.4m x 0.45m

Refs:Sainty et.al. 1938

Hogg 1940

91. Roughton, Norfolk TG222355 (Fig. XVIII)

30mOD : GSG/65m x 25m/SE-NW/Bii/regular but widen to c.3m for half of length on either side/causewayed enclosure - 30m. Another partially revealed or U ditch site behind A? (site B) c. 30m x 25m

Refs:Edwards 1978

NAU TG 2235/A/AKP 23

Lawson 1981, 36

TG 2235/G/AKP25

92. Misterton and Walcote, Leics. SP576848 (Fig. XVIII)

126mOD : GT/80m x 16m/NE-SW/Ai-ii/rather irregular/possible causeway towards SW end/possible rd 100m distant. EN flintwork in abundance from parish (eg. The Fieldworker, Leicester Museums Newsheet 50, Nov. 1984)

Refs:Loveday 1980

NMR SP5784.4-10

Liddle 1982, 12

93. Charlecote, Warwickshire SP268578 (Fig. XVIII)

(EXCAVATED)

48mOD : GT/72m x 14m/Bii/fairly irreg. ditches/causeways at corner and in centre of opposed site/excavated 1969-70: central clay floored feature 8m x 5m with turf deposits around edges (?mortuary structure); interrupted medi plough furrows crossing site indicate former mound; two large post holes cutting butt ends of ditches beside central causeway; Peterborough & Grooved ware from secondary and tertiary ditch silts/rds almost axially aligned at either extremity 40 and 80m distant.

Refs:Webster & Hobley 1964, 5,18,pl.IIa NMR SP2677/3-5

Christie 1965

11-14

Ford 1969 & 1971

94. Norton and Lenchwick, Worcestershire SP054477 (Fig. XVIII)

30mOD : GT/70m x 18m (incomplete)/NE-SW/Aii/regular/possible causeway in ?centre of one side

Refs:Webster & Hobley 1964, 5,16,pl.IIa NMR SP0547/8

95. Caldecotte, Bow Brickhill, Bucks. SP892357 (Fig. XVIII)

(EXCAVATED)

66mOD :GT/50m x 11m/NNE-SSW/Aii/fairly regular/no causeways/excavated 1982: ditches steep sided 2.5m x 1.5m; silting points to external bank, as does shallow external grave (?dug through bank); recut on three sides (?incorporated in larger enclosure);c¹⁴ from wood samples at base of unrecut ditch 43 ± 110ad (HAR 5614); mid 1st century AD pottery from recut ditches;semicircular gully within enclosure.

Refs:Loveday and Petchey 1982

96. Cardington B, Bedfordshire TL089497 (Fig. XVIII)

23mOD : GT/70m x 13m/NE-SW/Ai/irregular/almost central break in one side/component of rd - oblong cemetery

Refs: CUC ADO 70-71 BJB 42-3; 47-8
BNJ 76-7 BXU 97-101 K17 AM 1-5

97. Cardington C, Bedfordshire TL090497 (Fig. XVIII)

23mOD : GT/64m x 15m/NNE-SSW/Bi-ii (sharp corners but not right angled)/regular/central break in side ditch comparable to site B/rd immediately alongside/component of rd-oblong ditch cemetery

Refs:Field 1974, pl.7b AP refs as for site B

98. Flempton, Suffolk TL808695 (Fig. XIX)

31mOD : GT/65m x 28m/E-W/Bii/irregular and comparatively wide: 2-3m/no certain causeways/indications of parallel palisade trenches c.16m apart within interior

Refs: CUC VT 44 ADE 56

99. Pakenham, Suffolk TL940688 (Fig. XIX)

(DESTROYED)

35mOD : GT/55m x 18m/NW-SE/Ai/two apparent ditch forms: regular ditch of typical oblong ditch type (1.5/2.0m wide); "irregular" ?extensions of these along the sides (c.2.5/3.5m wide)/causeway in centre of one side/small rd axially placed within interior/rd immediately abutting side ditch and irregular double rd axially aligned c.50m south.

Refs:Martin 1981,67 CUC ADE 21-23 VS 40

100. Long Melford A, Suffolk TL860441 (Fig. XIX)

38mOD : GT/50m x 20m (incomplete)/N-S/Ai/regular but rather diffuse cropmarks(possibly not archaeological).

Refs:Martin 1981, 67

SAU DC 6

101. Stoke by Nayland A, Suffolk TL987348 (Fig. XIX)

15mOD : GT/50m x 20m (incomplete)/E-W/Ai/regular/rd 50m; on periphery of rd cemetery (cf. Kettlestone)

Refs:McMasters 1971

SAU ref. Stoke by Nayland 028

Martin 1981

102. Feering, Essex TL867206 (Fig. XIX)

26mOD : GT/95m x 25m (incomplete)/NNE-SSW/Ai/regular (strong cropmark 2-3m wide; equivalent to adjacent rd)/causeway just off centre within terminal/rd beside terminal, 15m distant.

Refs:Priddy 1981, 90

CUC BXN 37-9

103. Witham, Essex. TL839157 (Fig. XIX)

(Great Braxstead: Priddy 1981)

16mOD : GT/50m x 20m/NE-SW/Ai(NE) Aii-Bii (SW)/regular 2m wide/causeway in centre of NE terminal/slight cropmark of ?palisade trench inset 2m and mirroring ditch at NE end of site.

Refs:Priddy 1981, 90

CUC BXN 22

104. Rivenhall, Essex TL847166 (Fig. XIX)

16mOD : GT/70m x 18m/E-W/Aii/regular/small "corner"causeway.

Refs:Priddy 1981, 90

EAU RHF 130 1-2

McMasters sheet O. 29 1977

105. Lawford B, Essex TM075310 (Fig. XIX)

36mOD : GSG/45m x 22m (incomplete) - probably not longer than 55m as c.m.s do not extend beyond geological disturbance/E-W/regular ditch 2-3m wide/causeway in centre of terminal/possibly two internal pits flanking entrance but comparable marks scattered across field/2rds nominally aligned 160m & 500m to east.

Refs:Priddy 1981, 90

CUC BXJ 18

EAU RHF 134.7

McMasters Sheet 3. 6

106. Lawford C, Essex TM095303 (Fig. XIX)

34mOD : GSG/40m x 14m (incomplete)/E-W/Ai-ii/f. regular ditch 1-1.5m wide/no causeways visible: possibly open ended (cf. Stoke by Nayland)/ 2 small rds 60m and 130m distant.

Refs:Erith 1971

EAU Farrands 174.7

Priddy 1981, 90

107. Dorchester (site VIII), Oxon. SU569957 (Fig. XIX)

(EXCAVATED)

52mOD : GT/60m x 20/22m/NW-SE/Aii-Bii/regular, 1.5m wide Atkinson 1951/ 3 causeways: main one in centre of SE end, small examples offset from corner and in centre of opposed long side/excavation 1946-7: Ebbsfleet ware from upper silts; cursus ditch enters main causeway, changes alignment within the site and cuts secondary silts of NW terminal ditch. Clearly a major feature of cursus layout and focus for two multiple ditched hengiforms aligned on either end. Human mandible from unspecified location.

Refs:Atkinson et.al. 1951

Atkinson et.al. 1951, frontispiece & pl.I

Atkinson 1951

NMR SU 5795/21

113. Besthorpe, Nottinghamshire SK827628 (Fig. XX)

13mOD : GT/40m x 17m/NNW-SSE/Ai/regular/"corner" causeway/adjacent to sewage works so possibly related to former Pas Veer filtration channel.

Refs: CUC CJO 35

114. Kettlestone, Norfolk TF954292 (Fig. XX)

46mOD : GT/45m x 18m/E-W/Ai/irregular c.m.-2m+ wide/2opposed causeways; possibly 2 others/amongst cemetery of 13 rds - nearest 120m.

Refs: Edwards 1976 NAU TF 9529/G/AAV 28

Lawson 1981, 36 /H/AAV 27

115. Charlton, Hereford & Worcester SP007467 (Fig. XX)

23mOD : GT/50m x 24m/NNW-SSE/Bi/regular/no causeway/rd symmetrically placed over S. end (more substantial cropmark).

Refs: Webster & Hopley 1964 NMR SP0046/1-3

116. Fengate, Cambs. TL213993 (Fig. XX)

(EXCAVATED)

6mOD : GT/45m x 25m/NW-SE/Bi/regular/no causeway/excavated 1968: ditch round bottomed U profile 2.5m x 0.9m; initially claimed post holes along inner ditch edge now discounted by excavator but setting at corner on outer edge extending into ditch silts; S₂ Beaker at level of hearth in upper tertiary silts.

Refs: Mahaney 1969

Pryor 1978, fig. 3

117. Cardington A, Bedfordshire TL088501 (Fig. XXVI)

23mOD : GT/16m x 8m (strictly below base width accepted for oblong ditches but clearly related to sites B - E)/NW-SE/Bi/regular/no causeway/

almost completely enclosed by symmetrically placed rd.

Refs: CUC K17 AM2

118. Ashen, Essex TL759445 (Fig. XX)

49mOD : GT/38m x 23m/NE-SW/Aii-Bii/regular/no causeways/small enclosure (12m x 8m with one straight and one convex end) axially aligned just to west (cf. West Rudham "annex" and Cardington A); 4 rds within 130m.

Refs: CUC AAW 31 BCJ 80 BKJ 22

119. Handley I (Wor Barrow), Dorset SU013174 (Fig. XX)

(EXCAVATED) (EARTHWORK)

109mOD : chalk down/46m x 26m: assumed dimensions based on two surviving ditch segments and relationship to quarry ditch/NW-SE/probable Ai terminal/ditch apparently 1.5-1.8m wide (2.7m if projected to old land surface) and 2.7m deep (below O.L.S.) - based on single section: Pitt Rivers 1898,65 and fig. 2/rectangular palisade enclosure 28m x 10m set centrally within, and early ditches replaced by deep quarry ditch for covering long barrow/rbs placed obliquely near each terminal.

Refs:Pitt Rivers 1898

120. Wilsford (Normanton Down), Wilts. SU115411 (Fig. XX)

(EXCAVATED) (EARTHWORK)

93mOD : chalk down/38m x 20m/WNW-ESE/Ai/irregular, causewayed ditch/ major causeway (6m) in eastern terminal/excavated 1958-9: ditches 0.8 - 1.2m wide x 0.5-1.0m deep (one segment at eastern end widened : 1.5m); internal banks recorded on the ground and from the air (CUC NJ 74-6); opposed post bedding trenches for 3 posts each within entrance - A.Ps show coincide with ends of bank ?revetment/about 100m from long barrow (Wilsford 30), on periphery of Normanton Down cemetery.

Refs:Vatcher 1961

NMR SU1141/11

CUC NJ 74-6

121. Eynsham B, Oxon. SP424085 (Fig.XX)

66mOD : GT/c.35m x 18m/NE-SW/Ai/regular/no causeways/part of nucleated rd cemetery - almost certainly a multiple barrow.

Refs:Morris & Bradford 1941, fig.13

Riley 1944, 93

Note: Eynsham C approx 200m distant is of ovate/oblong plan but at

80m x 40m exceeds width parameter accepted for elongated ditches and is slightly kidney shaped. A certain double barrow with an rd abutting each end

Ref:Stanley 1981, fig. 11

122. North Stoke C, Oxon. SU608855 (Fig. V & XX)

48mOD : GT/30m x 16m/NW-SE/Ai/fairly regular/two slight breaks in ditch/two axially placed pits - ?burials from twin mounds/on periphery of rd cemetery with bank barrow.

Note: two ovate ditches (D&E) occur within this cemetery but internal ditches reveal that they were twinned round barrows (fig. XXVII)

Refs:Case 1982a, fig. 33

123. Sonning, Berkshire SU768761 (Fig. XX)

40mOD : GT/35m x 12-17m/NE-SW/Bii/regular; 1 side slightly bowed (cf. Dorchester VIII)/no apparent causeways/aligned towards corner of cursus 200m away; 1rd and 2 sub square enclosures between the two (L. Neo material from one of latter).

Refs:Gates 1985, 38, map 19

NMR SU7676/2/74-84

124. Freshwater, Isle of Wight, Hants. SZ336856 (Fig. XX)

(EARTHWORK)

76mOD : Chalk down/35m x 22m/E-W/Ai/ditch form uncertain/2 apparent causeways: major one in centre of eastern terminal (cf. Wilsford)/bank surviving to height of 0.5m/isolated

Refs:Smith 1979 xxxv

Short oblong ditches - U plan

125. Farndon, Cheshire SJ411558 (Fig. XX)

15mOD : GT/30m x 18m/N-S/Bii/regular/ditches in-turned slightly at open end/possibly utilitarian

Refs: Photographs D. Longley

126. Barford, Warwickshire SP287624 (Fig. XX)

(EXCAVATED)

64mOD : GT/28m x 16-18m/NW-SE/Ai/irregular/ditch slightly in-turned at open end/excavation 1972: ditch shallow, round bottomed (1-2m wide x 0.3-0.6m deep); plain bowl sherds from secondary & upper silts; in interior/large ramped post hole placed off centre at rear (2.2m x 0.9m x 0.5m deep); other features and possible post holes/abutted by southern terminal of cursus (ditch aligned around it); 2 rds and a hengiform within 400m.

Refs:Webster & Hobley 1964,7, pl.1a NMR SP2862/60-1

70-1

127. North Stoke B ("southern enclosure"), Oxon. SU611856 (Fig. XX)

(EXCAVATED)

48mOD : GT/20m x 12-15m/ESE-WNW/Ai/irregular/no causeways/open eastern

end (obscured by quarry spoil heaps but confirmed by shallowing ditch profile and by Allen's early photographs)/excavated 1950-2: ditches V profile average 1.7-2.0m wide x 1.25m deep; recut after secondary silts formed, backfilled and then minimally recut again C¹⁴ 2722 ± 49bc (BM 1405) for abutting linear ditches provides almost certain T.A.Q. Cremation off centre with miniature collared urned (1424 ± 83bc: BM 1406) lies on axis of bank barrow - ?related to it not site B.

Refs:Case 1982a

NMR SU6185/1-16

128. Crawley, Hants ("Little Grove": Grinsell 1938) SU449349 (Fig. XX)
(EARTHWORK)

107mOD : chalk down/27m (mound) -21m (ditch) x 20m/WNW-ESE/Ai/regular/
apparently open ended but E ditch possibly obscured by external bank of
saucer-disc barrow which appears to overlies oblong site/low twin mounds
within short oblong ditch (cf. Charlton but also Rockbourne and
Micheldever - latter only 5 miles away).

Refs:Grinsell 1938, 227, fig. 4, pl.6b

d) Trapeziform ditches

129. Aston, Derbyshire SK422294 (Fig. XXI)

34mOD : GT/60m x 26-38m/NW-SE/Ai/regular/opposed causeways/narrowest end
abutts cursus ditch, possibly open ended at this point/atypical in size
but comparable to Weasenham.

Refs:St. Joseph 1966

CUC BCL 17,24

Reaney 1968, fig. 2.

130. Marlingford, Norfolk TG126086 (Fig. XXI)

24mOD : GT/30m x 15m/NNE-SSW/Ai/regular ditch: cm 1.0/1.5m wide/no
causeways.

Refs:Edwards 1978, 92, fig.45 NAU TG 1208/A/AJY25
 pl.xxiv /B-D/AJZ1-3

131. Caistor St. Edmund, Norfolk TG234054 (Fig. XXI)

14mOD : GT/40m x 25-35m/NE-SW/Aii-Bii/regular ditch lines/no causeways/
 immediately adjacent to large rd (45m dia) with internal penannular
 ditch; 900m from Arminghall henge. Atypical site but points of resemblance
 to Dorchester, Overy and Cromwell.

Refs:Clark 1936 NAU TG 2305/AM/ACF11
 Lawson 1981, fig.18 /X/AAW11

132. Eynesbury Hardwicke, Cambs. TL181587 (Fig. XXI)

17mOD : GT/60m x 25-35m/NE-SW/Ai/regular c.m. at SW end; irregular c.m.
 c.4m wide at NE/no obvious causeways/two claimed, but very doubtful
 cursuses nearby.

Refs:Taylor, 1981, 109 CUC ADO 53
 NMR TL 1858/5/36-7

133. Long Melford B, Suffolk TL856457 (Fig. XXI)

32mOD : GT/60m x 20-25m/NW-SE/Bii/regular ditch (c.m. 1.5-2.0m) with
 slight incurve along one side/no certain causeways (cf. Roughton)/
 large penannular ditch (c.40m dia) almost symmetrically intersects SE
 end;wide c.m. (c.3/4m) suggests presence of a mound within rd/associated
 with a grouping of 3 other rds.

Refs:Martin 1981, 67 SAU DC 9

134. Levington, Suffolk TM243391 (Fig. XXI)

18mOD : GSG/45m x 16-20m/E-W/Ai/regular ditches c.m. c.1.5m wide)/
 no causeway/isolated: nearest rd 1km away;concentrated 1.5km away.

Refs:Martin 1981, 67

SAU CU 17-19 CQ 32

135. Latton, Wiltshire SU099952 (Fig. XXI)

80mOD : GT/55m x 20-30m/NNE-SSW/Ai/regular/no causeways/rd 80m to SW approx aligned.

Refs:Riley 1944, 93

Leech 1977, 12, map 3, pl.3

136. Eynsham A, Oxon. SP420081 (Fig. XXI)

66mOD : GT/54m x 27m/NE-SW/Ai/regular/no causeways/on periphery of large rd cemetery (c.400m).

Refs:Riley 1944, 93

Morris & Bradford 1941, fig.13

137. Dorchester Overy, Oxon. SU590941 (Fig. XXI)

47mOD : GT/46m x 20-27m/ESE-WNW/Aii/regular ditches (c.2m wide), somewhat bowed along sides/no causeways/c.m.s of possible post lines set back about 5m at proximal and distal ends; indications of parching within this area (CUC BTU 20)/adjacent to triple ditched hengiform; other rds and massive rectangular enclosure within 150m; cursus discredited.

Refs:Allen 1938, fig. 30

NMR SU 5894/17/302-11

RCHM 1960, pl.7a

/18/316-25

Benson & Miles 1974, map 36

/36/164-7

CUC BTU 20

138. Purley A, Berks. SU648765 (Fig. XXI)

42mOD : GT/45m x 22m/E-W/Ai/regular/no causeway/only associated monument

is a comparable ovate ditch.

Refs: Gates 1975, 25, map 4

NMR SU 6476/10/147-9

/11/266-8

e) Ovate ditches

139. Harpley, Norfolk TF 809254 (Fig. XXII)

(EARTHWORK)

74mOD : GSG/40m x 20m/N-S/?Ai/soil marks suggest encircling ditch of ovoid plan.

Refs: Lawson 1981, 21

140. Weasenham, Norfolk TF853196 (Fig. XXII)

(EXCAVATED) (EARTHWORK)

70mOD : GSG/50m x 25m/NNE-SSW/Ai/regular ditch/opposed causeways recorded by Puddy; not apparent in a.p.s /excavated 1971: ditch 2.2-2.4m wide x 0.3-0.5m deep; no certain dating evidence but Beaker coarseware sherd near ditch/part of large rd cemetery.

Refs: Peterson 1972

CUC ZP 49

Lawson 1981, fig. 16

141. Royston, Herts. TL342402 (Fig. XXII)

(EXCAVATED) (EARTHWORK)

117mOD : crest of chalk down/41m x 28m/Ai/excavated 1935: ditch 1.5-2.0m x 1.5m deep; 6 sections all barren; excavation and soundings pointed to regular ovate plan; encloses trapezoidal mound 33m x 17-8m, berm 3-4.5m wide/part of nucleated round barrow cemetery.

Refs: Phillips 1935b

142. Swaffham Prior, Cambridgeshire TL590620 (Fig. XXII)

(EARTHWORK)

34mOD : low chalk rise/60m x 18m/ENE-WSW/?Ai/earthworks suggest wide encircling ditch; recorded by RCHM as 7.6m wide x 0.22m deep (1972)/ encircles low mound now levelled. (Ditch width may force the exclusion of this site from the elongated ditch group)

Refs:RCHM 1972b 134

NMR 6457/1-5

143. Cavendish, Suffolk TL817463 (Fig. XXII)

36mOD : GT/58m x 730m/NW-SE/Bii/regular ditch strongly bowed along single traceable side/causeway in eastern terminal/immediately adjacent to nucleated cemetery of 7 rds.

Refs:Martin 1981, 67

CUC ARV 62, 65, 78 AOI 15-19

144. Bures St. Mary C, Suffolk TL905357 (Fig. XXII)

24mOD : GT/38m x 18m/E-W/Ai/regular: c.m. 1.0-1.5m wide/no causeways/ adjacent to site B (cf. Purley A & B).

Refs:Martin 1981, 66

CUC BCT 32-4

145. Bures St. Mary D, Suffolk TL904356 (Fig. XXII)

24mOD : GT/32m x 18m/NW-SE/Bii(SE; Aii(NW)/rather irregular ditch (c.m. c.2m wide)/possible causeway on one side/ by no means as regular as site A (subovate-rectangular), but close proximity (45m) and similar size makes opposed functions unlikely.

Refs:

McMasters 7/6, 7/9

146. Lamarsh, Essex TL900359 (Fig. XXII)

23mOD : GT/38m x 18m/NNW-SSE/Ai/regular/no causeways/rd 60m distant/on

opposite bank to Bures St. Mary A & B, c.700m.

Refs:

McMasters 53/17

147. Lawford A, Essex TL090300 (Fig. XII).

(EARTHWORK)

34mOD : GSG/50m x 30m/ENE-WSE/Ai-ii/irregular/almost opposed causeways/
low mound contained within ditches.

Refs:Erith 1971b

NAU RHF 100.8

Hedges 1980

112.1

148. Springfield, Essex TL734072 (Fig. XXII)

(DESTROYED)

23mOD : GT/38m x 18m/NE-SW/Ai/regular; c.m. 1.5m wide/possible causeway
in centre of southern side/in approx. alignment with eastern end of
cursus.

Refs:Priddy 1981, 90

CUC BXK 6

149. Benson, Oxon. SU625916 (Fig. XXII)

61mOD : GT/50m x 30m/SSW-NNE/Ai/regular/possible causeways on west side/
130m from cursus and approx. commonly aligned.

Refs:Benson & Miles 1974, map 41 CUC DZ 71

150. Rockbourne, Hants. SU106210 (Fig. XXII)

(EARTHWORK)

76mOD : chalk down/34m x 21m/NE-SW/Ai/no causeways/oval mound within
ditch overlies outer bank of abutting disc barrow (cf. Crawley, Charlton,
Long Melford B)/within Rockbourne Down barrow cemetery.

Refs:Grinsell 1938, 221, fig. 4

Smith 1979, fig. 6

151. Micheldever, Hants. SU525365 (Fig.XXII)

(EARTHWORK) (EXCAVATED)

107mOD : chalk/30m x 20m/E-W/Ai/fairly regular/no causeways/excavated
1974: ditch 3.6-2.4m wide; 2 mounds 11 and 8.5m dia surviving 1.10 and
0.6m high, linked by flint cairn; cremations under each, 2 with collared
urns (cf. Bures St. Mary, Springfield).

Refs:Fasham 1975

152. Purley B, Berks. SU647767 (Fig. XXII)

42mOD : GT/35m x 20m/N-S/Ai/regular/causeways uncertain: c.m.s incomplete/
adjacent to Purley A, otherwise isolated.

Refs:Gates 1975, 25

NMR SU 6476/10/147-9

11/266-8

II UNCHARACTERISTIC OR DOUBTFUL

a) Oblong ditches

153. Inchtuthill, Tayside, NO124396 (Fig. XXIII)

c.60m x 8m. Apparent Bi oblong ditch crossing cropmarks of legionary
fortress at an angle (E-W). Too narrow to be accepted as oblong ditch,
however, and strikingly close to width of barrack blocks - related to
some military phase of use of the fortress site?

Refs:Marsac et.al. 1982, frontispiece NMR (Scot) PT 5410

154. Burton Agnes, Humberside TA 094643 (Fig. XXIII)

c.100m x 18-15m. NE-SW Possible extended oblong ditch? with typical
offset causeway. Site strangely tapered, however, and marks do not
appear to extend beyond old hedge boundary which they meet at an angle.

Refs:

CUC BHE 16

155. Peckleton, Leicestershire SK471999 (Fig. XXIII)

100-140m x 20m. NNW-SSE. Irregular cropmark of curved plan. Some resemblance to Ai oblong ditch form but no parallel for curvature and marks continue beyond putative southern terminal.

Refs: Liddle 1982, 12

156. Cardington D, Bedfordshire TL 089497 (Fig. XXIII)

c.110m x 22m. NNE-SSW/ Faint marks of possible Bi oblong ditch intersecting a ring ditch and ending beside site B. Other faint marks aligned on terminal and parallel to site - part of field drainage grid?

Refs: CUC K17 AM 1-5

157. Bures St. Mary B, Suffolk TL 917332 (Fig. XXIII)

80m x 10m. NNE-SSW. Narrow oblong ditch (Ai) intersecting cropmarks of Bii extended oblong ditch (site 80). Uncharacteristically narrow and appears faintly on only a few a.p.s of site. Agricultural or related to adjacent sewage works?

Refs: McMasters 1971, 7 McMasters sheet 0, 14

Erith 1971a, site 4

158. Hinton Waldrist, Oxon. SU 376980 (Fig. XXIII)

88m x 23m. NE-SW. Oblong ditch with squared ends and causeways in SW terminal and SE long side. Recorded as earthwork 1919: internal bank, ditch a surviving feature 0.9-1.8m deep. Afforded protection by inclusion in a copse but state of preservation seems too good for a prehistoric earthwork. Location on hill slope and just off nearby gravel terraces of the Thames (1km) makes it atypical. Unlikely, however, to be of utilitarian purpose. Worthy of investigation.

Refs:Huntingford 1936, 162 & fig.1

159. Abingdon, Oxon. SU 512982 (Fig. XXIII)

c.25m x 20m. NE-SW. Double ditched site with slightly bowed sides but best classified as short oblong with Bii terminals. Cropmarks indicate broader inner ditch so not a palisade trench as at Flempton and Witham - atypical. Position across alignment of causewayed enclosure ditches and at head of Radley linear cemetery suggests might be Neolithic, however.

Refs:St. Joseph 1961

Benson & Miles 1974, 88

160. Chilham, Kent. TR 518716 (Fig. XXIII)

c.45m x 15m. NNE-SSW. Ai-ii oblong ditch immediately juxtaposed to Julieberries Grave long barrow but on slightly different alignment. Identification not certain - faint cropmarks and area is one of recent disturbance (chicken runs, horse training areas, etc. - R. Jessup pers.comm). Nothing showing in Stukeley's views of the long barrow (1724, pls 56 & 57) so might result from cultivation over a deeply incised horse exercise course.

Refs:

CUC BFY 59-61

161. North Tawton C, Devon SS695013 (Fig. XXIII)

c.40m x 12m. E-W. Possible Bii oblong ditch (?one end open) on valley side - open end facing down slope. Might represent drainage ditch dug around uphill sides of farm building or clamp.

Refs:

CUC BTR 008

b) Trapeziform ditches

162. Milfield, Northumberland NT940337 (Fig. XXIV)

60m x 20m. N-S. Apparent trapeziform ditch with rounded corners enclosing a small rd (c.10m dia). Possibly, however, relates to Anglo/Saxon palace complex of Melmin (T. Gates pers.comm).

Refs:Micket 1976, 128, pl 7III

163. Rudston, Humberside TA093661 (Fig. XXIV)

60m x 20-25m. NNE-SSW. Apparent trapeziform - oblong ditch near cursus A (cf. Ewart) but rather distorted outline.

Refs: CUC ARU 2

164. Fiskerton, Nottinghamshire SK735576 (Fig. XXIV)

60m x 26m. NW-SE. Apparent trapeziform ditch with A1 terminal, but other end flattened. Rd within one half of site - perhaps encircled double r b with second site unditched.

Refs: NMR SK 7351/2, 16

165. Exning, Suffolk TL641666 & 625674 (Fig. XXIV)

110m x 35m, E-W; 40m x 20m (incomplete), NNE-SSW. Two diffuse, rather formless marks, almost certainly geological.

Refs:Martin 1981, 67

166. Bramford, Suffolk TM104462 (Fig. XXIV)

c.50m x 25m. E-W. Subrectangular-trapeziform site but defined by rather diffuse marks, with others attached to the western end. Possibly agricultural.

Refs: SAU CR 32

167. Brightlingsea, Essex. TM078192 (Fig. XXIV)

50m x 25m. ENE-WSW. Trapeziform but with rather waisted outline.

Parching possibly indicates banks. Form paralleled by sites such as Stainton-le-Vale, Lincolnshire (Marsac et.al. 1982, fig.9) and antiquity perhaps supported by adjacent rd. Uncharacteristic within region, however.

Refs:

NMR TM 0719/3/130

CUC 2K 83

c) Ovate ditches

168. Blyton, Lincolnshire SK812946 (Fig. XXIV)

53m x 20/30m. ESE-WNW. Western terminal Ai and one side bowed in ovate manner, but irregular eastern terminal. Wider than the norm.

Refs:

Lincs. S.M.R.

169. Stowe Nine Churches, Northants. SP648572 (Fig. XXIV)

30m x 11m. NE-SW. Ovoid with one straighter side; large pit within one half of site. Twinned barrows?

Refs:

NMR SP 6457/1-5.

170. Great Chishill, Cambs. TL405404

Two sites: 60m x 35m, N-S; 40m x 20m, E-W. Rather formless ovals - possibly not archaeological.

Refs: Taylor 1981, 109

171. Stoke by Nayland B, Suffolk TL984349 (Fig. XXIV)

20m x 10m. E-W. Small kidney shaped site beside a tight cluster of 8 small rds. Probably twinned rb.

Refs: Martin 1981, 67

NMR TL 9834/1/457-8

172. Tolleysbury, Essex TL942084 (Fig. XXIV).

38m x 15m. ENE-WSW. Ovate- similar to Lamarsh but rather vague marks and form lacks precision.

Refs: Priddy 1981, 90

173. Thorington, Suffolk TM431729 (Fig. XXIV)

50m x 35m. N-S. Ovate with one straight side and one flattened terminal (cf. Blyton). Wider than the norm but near rds.

Refs: Martin 1981, 67

SAU JA 22-3 GD 6

174. Sudbourne, Suffolk TM439532 (Fig. XXIV)

c.25m x 10m. N-S. Small ovate in a large complex of c.m.s comprising tracks, enclosures and ring ditches; interrupts one ditch line.

Probably twinned barrow (cf. Stoke by Nayland).

Refs: Martin 1981, 67

III ALLIED BRACKETING DITCH CROPMARKS FROM CENTRAL ENGLAND

a) Parallel

175. Sandy, Bedfordshire TL176478 (Fig. XXII)

23mOD : GT/28m x 17m/E-W/both ends of S. ditch slightly inturned/cropmarks of typical oblong ditch size (c.1.5-2.0m) and rather irregular/feature of a nucleated cemetery of 6rds (cf. Kettlestone).

Refs:

NMR 17481/431

CUC BIZ 80 BTI 64

176. Mount Bures, Essex TM914330 (Fig. XXII)

20mOD : GT/28m x 20m (incomplete)/ENE-WSW/not fully traced so classification not absolutely certain but characteristic inturn of

ditches at proven open end/ditch cropmarks 2-3m wide/possible cursus and rd cemetery aligned; site on same alignment as Bures St. Mary A on opposite bank.

Refs:

CUC AA W20

177. Dedham, Essex TM065326 (Fig. XXII)

6mOD : GT/55m x 20m/E-W/cropmarks of irregular ditches with inturned ends, widest along flanks (c.3m)/r.d. diagonally placed 50m away.

Refs:Priddy 1981, fig.39 (03.36) CUC BXJ 6; ZL 3

b) Trapeziform

178. Drayton, Oxon. SU483949 (Fig. XXII)

63mOD : GT/25m x 18m (palisade c.m.s 16m x 8-10m)/E-W/irregular ditch cropmarks c.3m wide - typical small quarry ditched long barrow.

Refs:Benson & Miles 1974, 61-2 NMR SU 4894/5

CUC AFT 78

IV PRINCIPAL OBLONG DITCHES OUTSIDE MAINLAND BRITAIN (excluding sites listed by Marsac & Scarre (1982) and Verwers (1966))

179. Tara, Co. Meath, Eire (Fig. XXV)

229m x 27m/N-S/surviving earthwork (bank only;sunken interior) with one Bi/Bii terminal and one open end/aligned on Rath of the Synods (dated by Roman exports to 1st-3rd century A.D.) but also on the Mound of the Hostages just beyond (dated 1930 \pm 150bc: D44).

Refs:Piggott 1968, 56

180. Aulnay aux Planches, Marne, France (Fig. XXV)

90m x 15m (widening to 17m at causeway)/NE-SW/SW terminal Bii; NE Bi/
ditch regular - V profile (1.5-2.0m wide x 1.5m deep) but narrow, near
vertical profile at base (?palisade trench). Secondary and upper
fill of black earth/single causeway in side ditch 19m from terminal/
central (?principal) cremation in a Hallstatt A-B urn with ancilliary
vessels (contemporary with adjacent cemetery group B); burial of an
infant and a cremation with Hallstatt Burn at NE end of enclosure; 2
unaccompanied cremations and a burial placed between entrance and
large post pit (2.6m deep) on opposite side of enclosure containing
an ox skull and tibia/lines of 2 and 3 stones placed just inside
terminals and across centre of site/?post hole just within causeway/
site probable dates to 10th century BC.

Refs: Brisson and Hatt 1953

181. Libernice, Bohemia, Czechoslovakia (Fig. XXV)

91m x 23m/NW-SE/Aii-Bii terminals/no causeways/ditch 1.5m wide x 1.5m
deep: lower silts produced by flooding of R. Elbe/internal bank/
central grave of aged female with bronze bracelets, leg rings and
fibula + amber beads/sunken area (c.10m x 10m) within centre of SE
terminal; deep pits in floor filled with animal and human bone + an
infant burial; standing stone 2m high, small paved area and 2 close set
post holes (charred remains beside + 2 bronze neck rings) on axis of
enclosure within sunken "sanctuary"/2 opposed pairs of post flanking
sunken area and 2 other pairs in ditch/probably dated to late 4th century
BC.

Refs: Rybova & Soudsky 1962

COUNTY CONCORDANCE

CORPUS NUMBER	CLAIMED CURSUSES (*denotes sites in categories IV&V)	CORPUS NUMBER	ELONGATED DITCHES (*denotes sites in category II)
	<u>Bedfordshire</u>		<u>Bedfordshire</u>
31	Biggleswade	117,96	Ob Cardington A-C
30	Cardington (E)	97	
51	*Felmersham	156	Ob *Cardington D
42	*Kempston	81	Ob Cople
64	*Willington	175	(Sandy: bracketing ditches)
	<u>Berkshire</u>		<u>Berkshire</u>
35	Sonning	138	T Purley A
72	*Englefield	152	Ov Purley B
73	*Ufton Nervet	123	Ob Sonning
	<u>Cambridgeshire</u>		<u>Buckinghamshire</u>
9	Maxey	95	Ob Caldecotte - Bow Brick Hill
52-53	*Eynesbury Hardwicke A&B		
54	*Manea		<u>Cambridgeshire</u>
65	*Shepreth	79	Ob Bainton
	<u>Central Region</u>	80	Ob Barnack
37	Bannockburn	132	T Eynesbury Hardwicke
	<u>Clwyd</u>	116	Ob Fengate
40	Corwen	142	Ov Swaffham Prior
		170	Ov *Great Chishill
	<u>Derbyshire</u>		<u>Cheshire</u>
8	Aston	125	Ob Farndon
7	Findern		
	<u>Dorset</u>	129	<u>Derbyshire</u>
18	Gussage		T Aston
36	Pentridge		
	<u>Dumfries & Galloway</u>		<u>Devon</u>
24-25	Hollywood A & B	111	Ob Nether Exe
		109-10	Ob North Tawton A-B
		161	Ob *North Tawton C
	<u>Essex</u>		<u>Dorset</u>
12	Springfield	119	Ob Handley (Wor Barrow)
57	*Clacton (Lion Point)		

CORPUS NUMBER	CLAIMED CURSUSES (*denotes sites in categories IV&V)	CORPUS NUMBER	ELONGATED DITCHES (*denotes sites in category II)
68	*Dedham		<u>Dumfries & Galloway</u>
58	*Great Holland	87	Ob Fourmerkland
69	*Lawford		<u>Essex</u>
45	*Middleton	118	Ob Ashen
55	*Mount Bures	167	T Brightlingsea
56	*Wormingford	102	Ob Feering
	<u>Gloucestershire</u>	146	Ov Lamarsh
11	Lechlade	147	Ov Lawford A
	<u>Greater London</u>	105-6	Ob Lawford B & C
75	*Bedfont	104	Ob Rivenhall
	<u>Humberside</u>	148	Ov Springfield
4,5,6, 26	Rudston A-D	172	Ov Tolleysbury
63	*Catton	103	Ob Witham
39	*Fimber	176-7	(Mount Bures and Dedham: bracketing ditches)
	<u>Northamptonshire</u>		<u>Gloucestershire</u>
50	*Titchmarsh	135	T Latton
	<u>Northumberland</u>		<u>Gwynedd</u>
46	*Milfield	76	Ob Llandegai
	<u>North Yorkshire</u>		<u>Hampshire</u>
2	Scorton	108	Ob Basingstoke
3	Thornborough	128	Ob Crawley
38	*Copt Hewick	124	Ob Freshwater
47	*Duggleby	151	Ov Micheldever
	<u>Oxfordshire</u>	150	Ov Rockbourne
34	Benson		<u>Hereford & Worcester</u>
15	Dorchester	115	Ob Charlton
33	Drayton St. Leonard	94	Ob Norton and Lenchwick
44	Shillingford		<u>Hertfordshire</u>
13-14	Sutton Courtenay/Drayton A & B	141	Ov Royston

CORPUS NUMBER	CLAIMED CURSUSES (*denotes sites in categories IV&V)	CORPUS NUMBER	ELONGATED DITCHES (*denotes sites in category II)
60	*Abingdon		<u>Humberside</u>
43	*Buscot B	154	Ob *Burton Agnes
49	*Clanfield	163	T *Rudston
71	*Dorchester, Overy		<u>Kent</u>
61	*Goring	160	Ob *Chilham
	<u>Tayside</u>		<u>Leicestershire</u>
21	Balneaves	89	Ob Lockington
19-20	Inchbare A & B	92	Ob Misterton and Walcote
23	Kinalty	155	Ob *Peckleton
22	Maryton		<u>Lincolnshire</u>
62	*Huntingtower	168	Ov *Blyton
	<u>Tyne & Wear</u>		<u>Norfolk</u>
1	Offerton	131	T Caistor St. Edmund
	<u>Suffolk</u>	139	Ov Harpley
29	Fornham All Saints	114	Ob Kettlestone
32	Stratford St. Mary	130	T Marlingford
66	*Kedington	91	Ob Roughton
67	*Stoke by Nayland	140	Ov Weasenham
	<u>Surrey</u>	90	Ob West Rudham
74	*Stanwell		<u>Northamptonshire</u>
	<u>Warwickshire</u>	169	Ov *Stowe Nine Churches
10	Barford		<u>Northumberland</u>
28	Charlecote	88	Ob Ewart
27	Longbridge, Warwick	162	Ob *Milfield
41	Ryton		<u>Nottinghamshire</u>
48	*Ettington	113	Ob Besthorpe
	<u>Wiltshire</u>	112	Ob Cromwell
17	Amesbury	164	T *Fiskerton
16	Winterbourne Stoke		<u>Oxfordshire</u>
70	*Castle Coombe	84	Ob Buscot A
59	*Idmiston		

CORPUS NUMBER	ELONGATED DITCHES (*denotes sites in category II)
149	0v Benson
107	0b Dorchester VIII
137	T Dorchester, Overy
136	T Eynsham A
121	0b Eynsham B
85,127 122	0b North Stoke A-C
159	0b *Abingdon
178	(Drayton: bracketing ditches)
158	0b *Hinton Waldrist
	<u>Powys</u>
77	0b Welshpool
	<u>Staffordshire</u>
78	0b King's Bromley
	<u>Suffolk</u>
82	0b Bures St. Mary A
144-5	0v Bures St. Mary B&C
143	0v Cavendish
98	0b Flempton
134	T Levington
100	0b Long Melford A
133	T Long Melford B
99	0b Pakenham
101	0b Stoke by Nayland A
83	0b Stratford St. Mary B
166	T? *Bramford
157	0b *Bures St. Mary D
165	0v *Exning
171	0v *Stoke by Nayland B
174	0v *Sudbourne
173	0v *Thorington
	<u>Tayside</u>
86	0b Douglasmuir
153	0b *Inchtuthill
	<u>Warwickshire</u>
126	0b Barford

CORPUS ELONGATED DITCHES (*denotes
NUMBER sites in category II)

93 Ob Charlecote




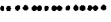


Wiltshire

120 Ob Wilsford (Normanton
Down)


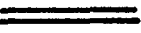
442

CORPUS PLANS : CONVENTIONS EMPLOYED

1:10560 & 1:2500 scales

	Crop mark of ditch
	Uncertain extension of ditch cropmark
	Obstacle to cropmark production
	Pits
	Stream
	Adjacent length of river

Additional conventions employed at 1:2500

	Mounds, banks or parchmarks
	Excavated ditches (extent of investigation not indicated)

1 : 10560

SURVEY

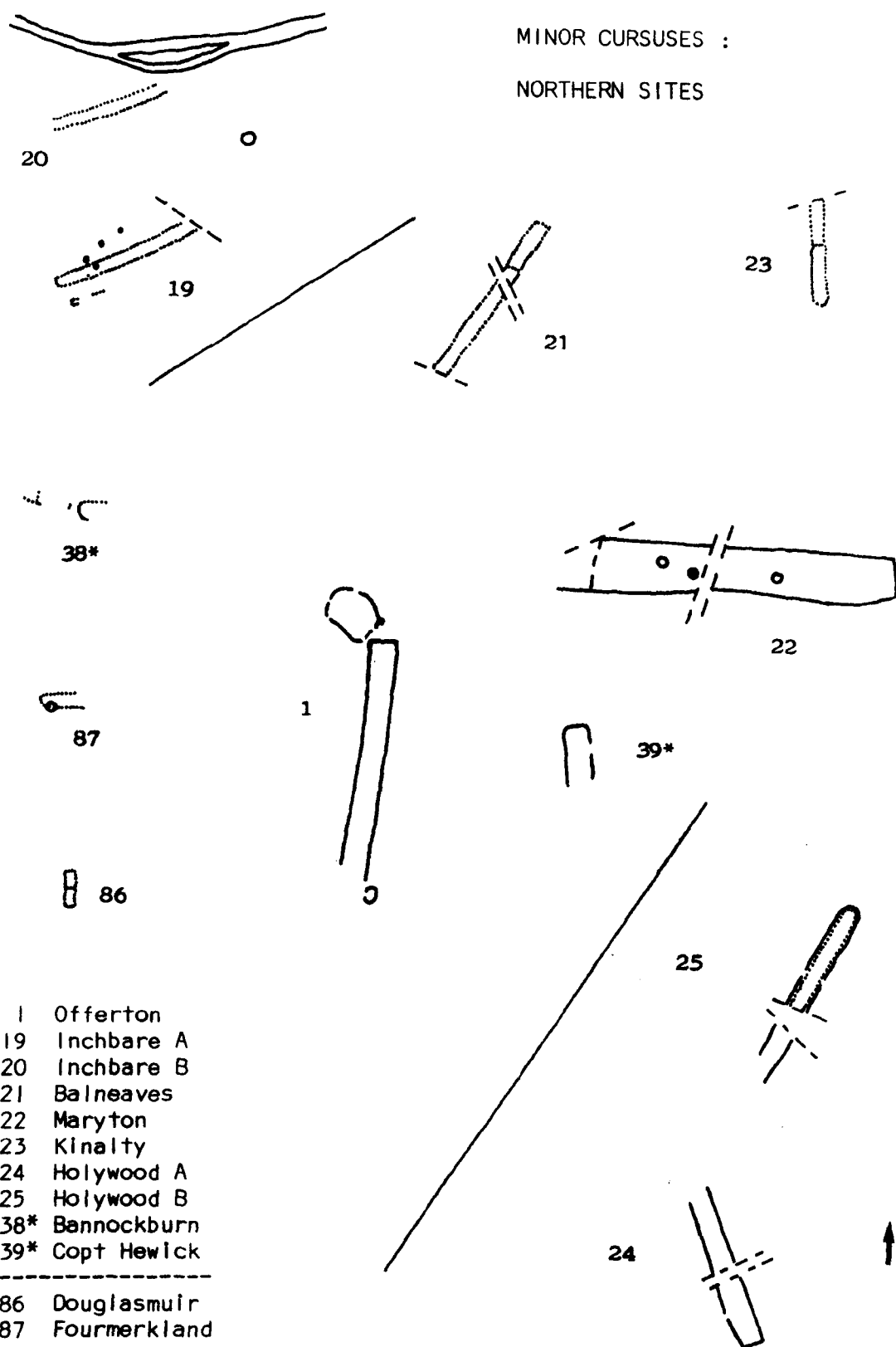
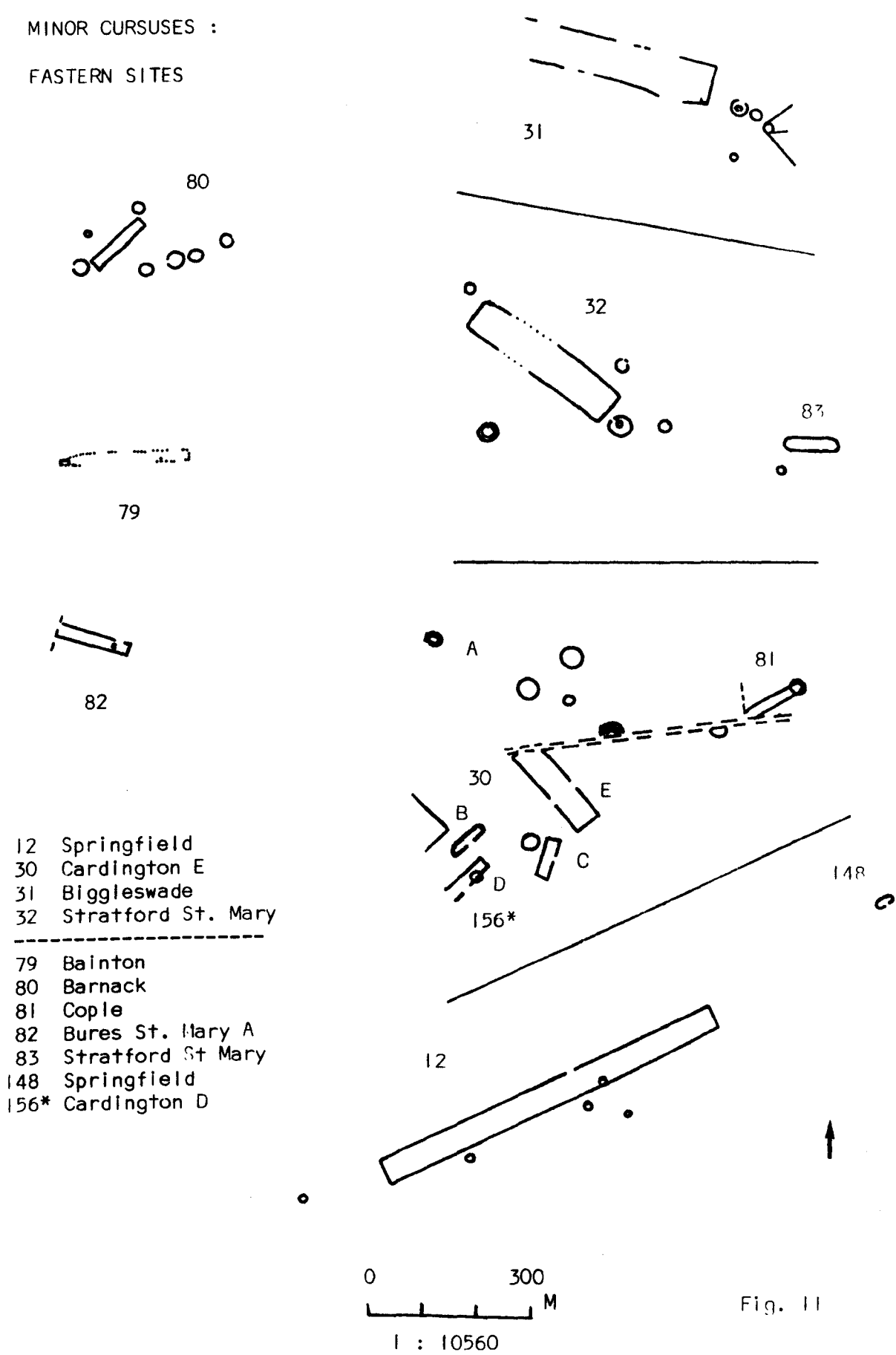


Fig. 1

MINOR CURSUSES :

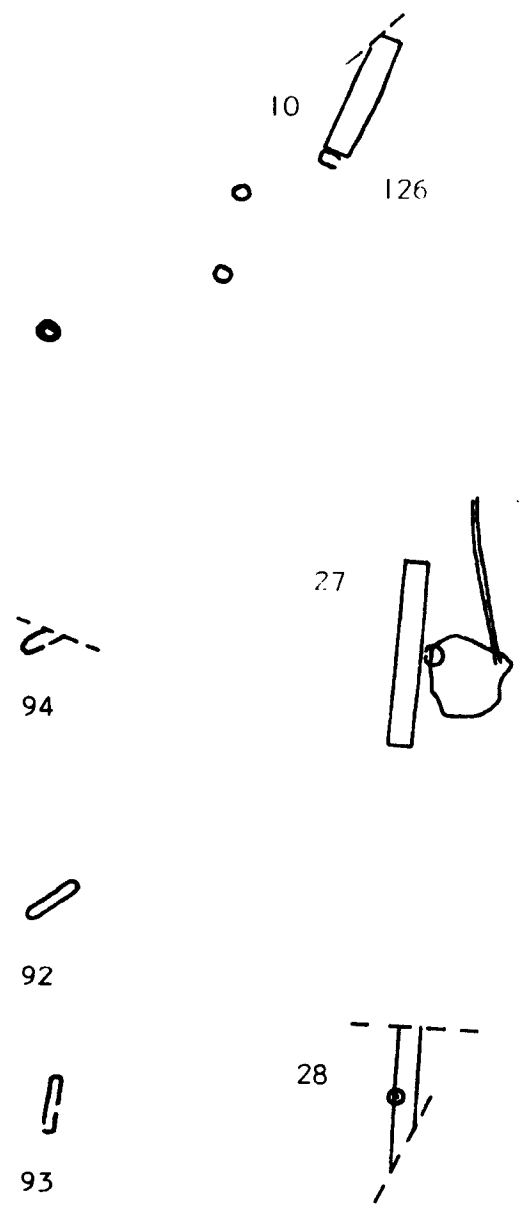
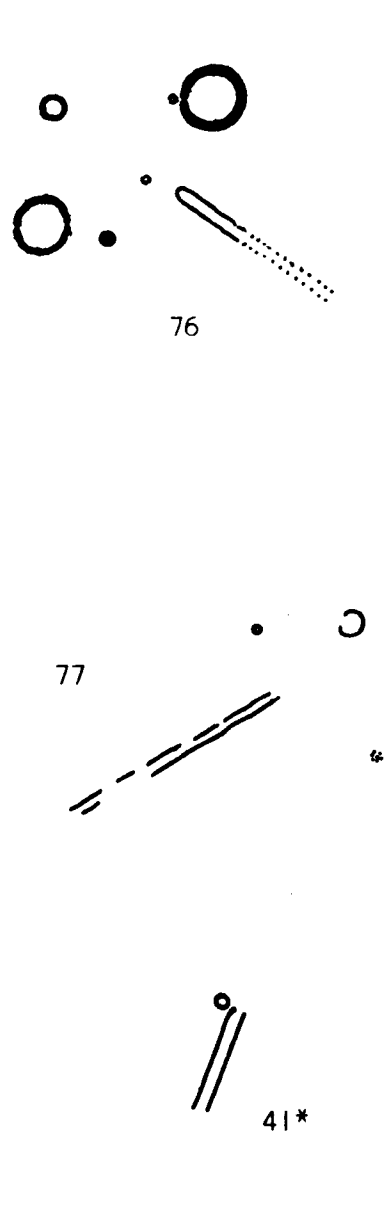
FASTERN SITES



MINOR CURSUSES - OBLONG DITCHES

WALES

WEST MIDLANDS



- 10 Barford
 - 27 Longbridge, Warwick
 - 28 Charlecote
 - 41* Corwen (Druid)
 - 42* Ryton
-
- 76 Llandegai
 - 77 Welshpool
 - 92 Misterton & Walcote
 - 93 Charlecote
 - 94 Norton & Lenchwick
 - 115 Charlton

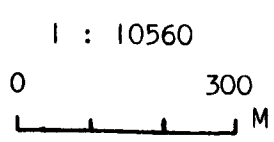


Fig. III

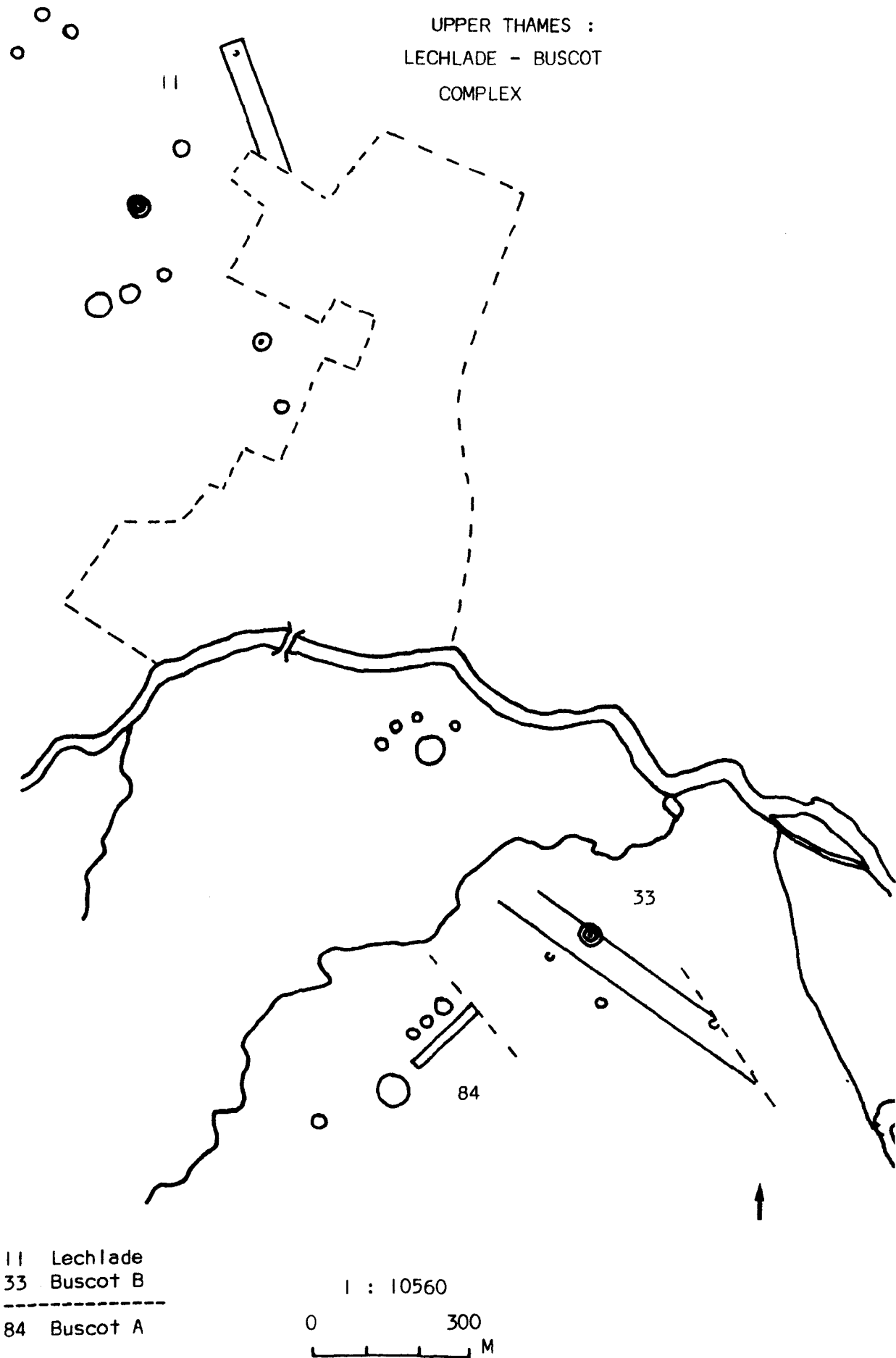


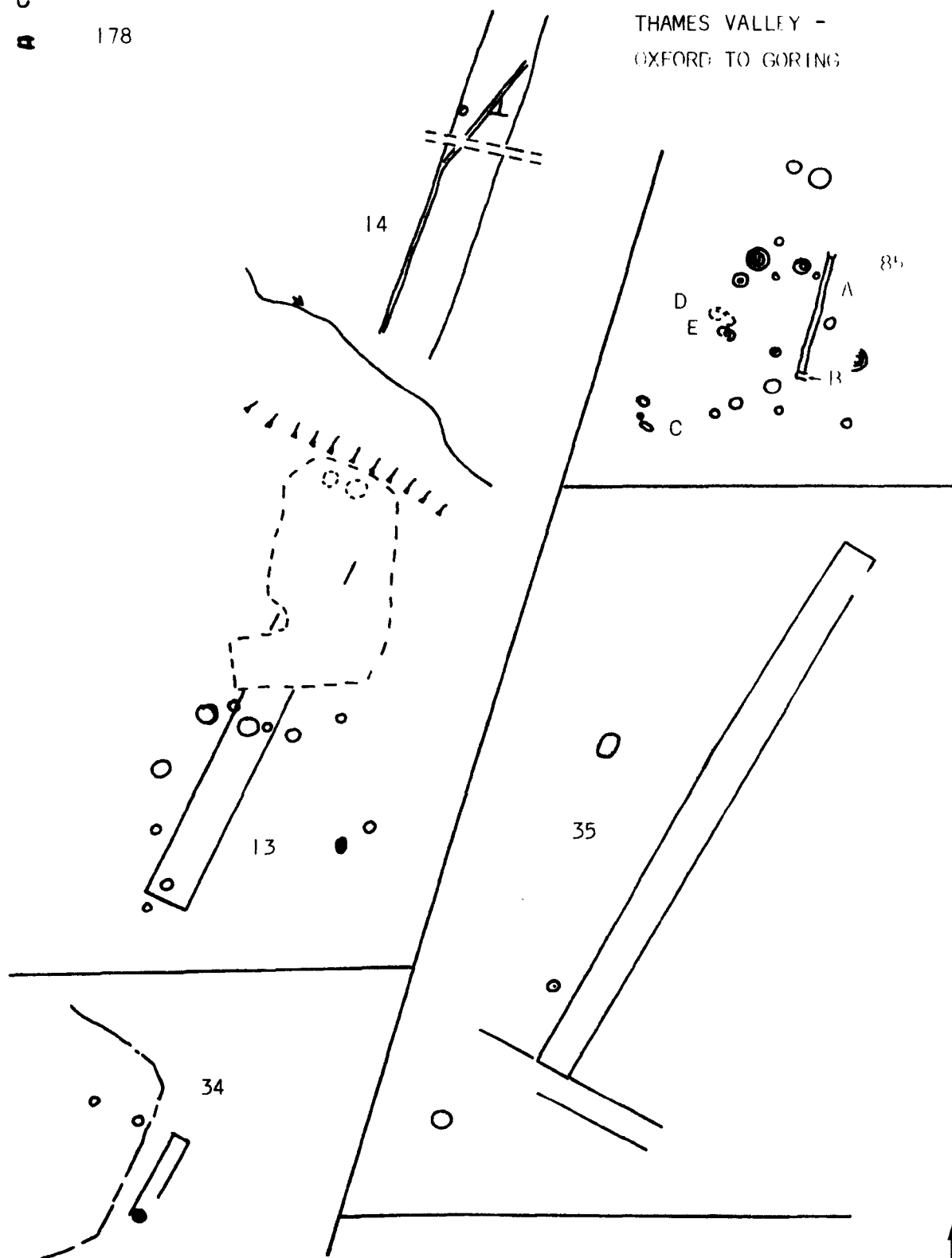
Fig. IV

C

A

178

THAMES VALLEY -
OXFORD TO GORING



- 13 Sutton Courtenay / Drayton A
- 14 Sutton Courtenay / Drayton B
- 34 Drayton St. Leonard
- 35 Benson
- 36 Sonning

- 85 North Stoke A
- 178 Drayton long barrow

1 : 10560
0 300
M

Fig. V

TRENT VALLEY

- 7 Findern
- 8 Aston
-
- 78 King's Bromley
- 89 Lockington
- 129 Aston

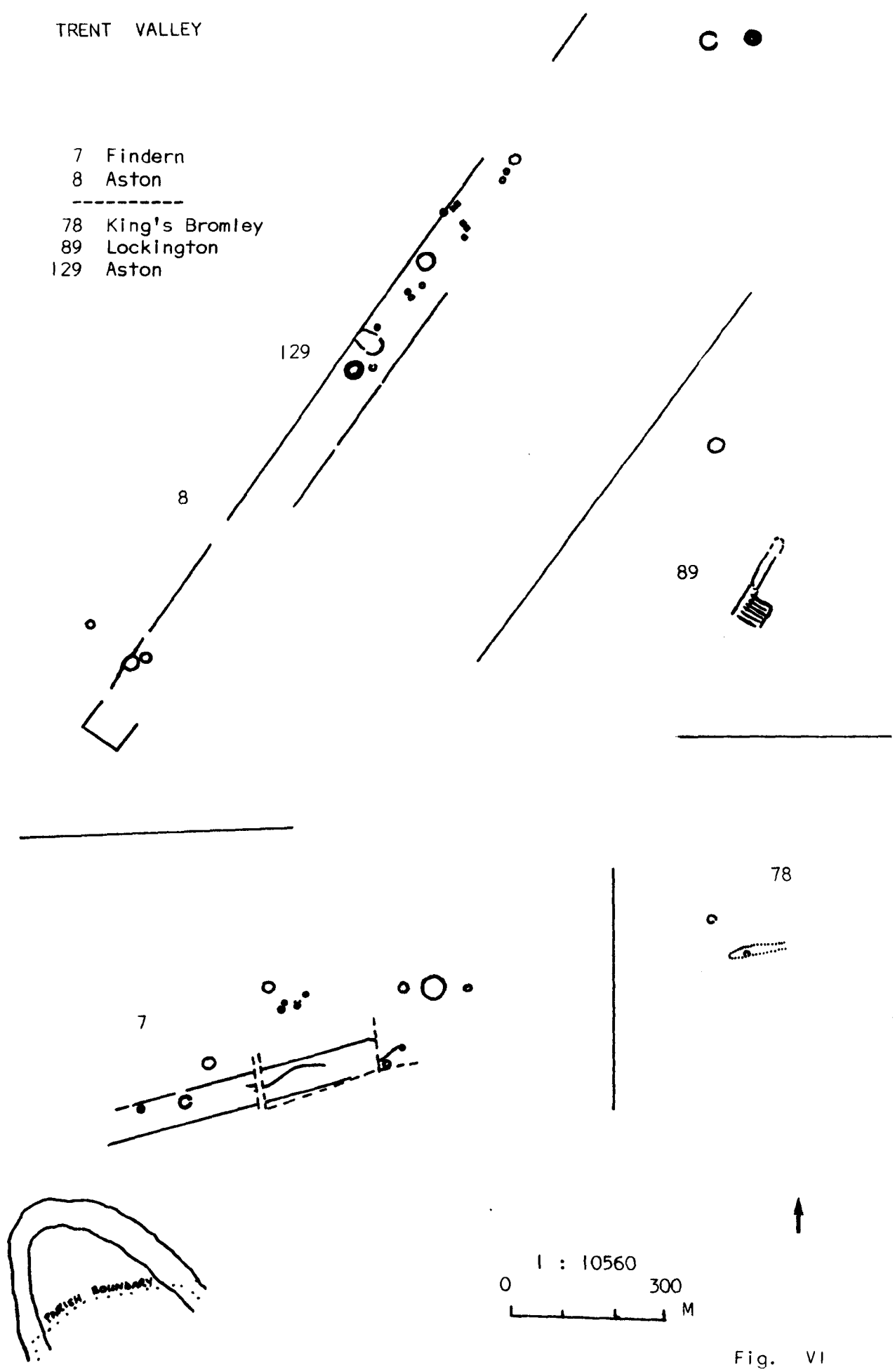


Fig. VI

3 THORNBOROUGH
(Henge ditches
after Chadwick)



5 RUDSTON C

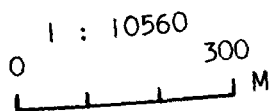
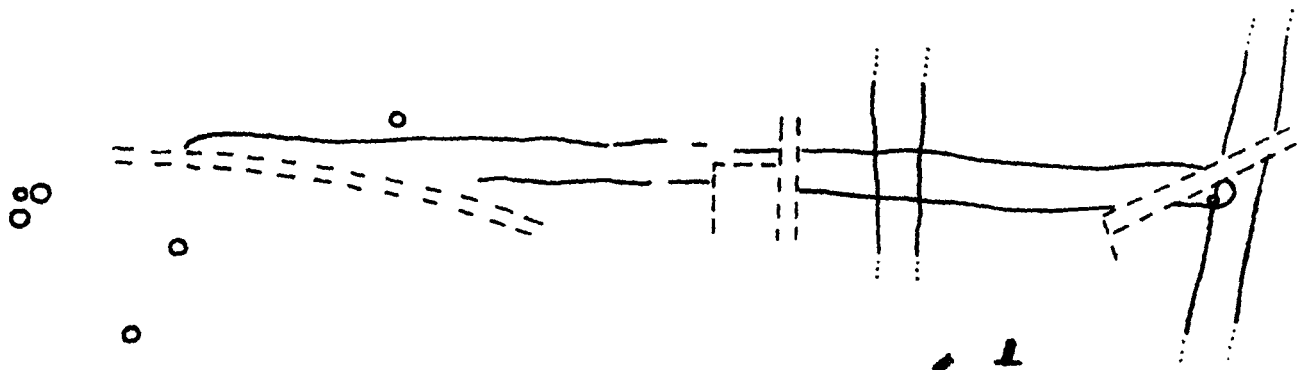


Fig. VII

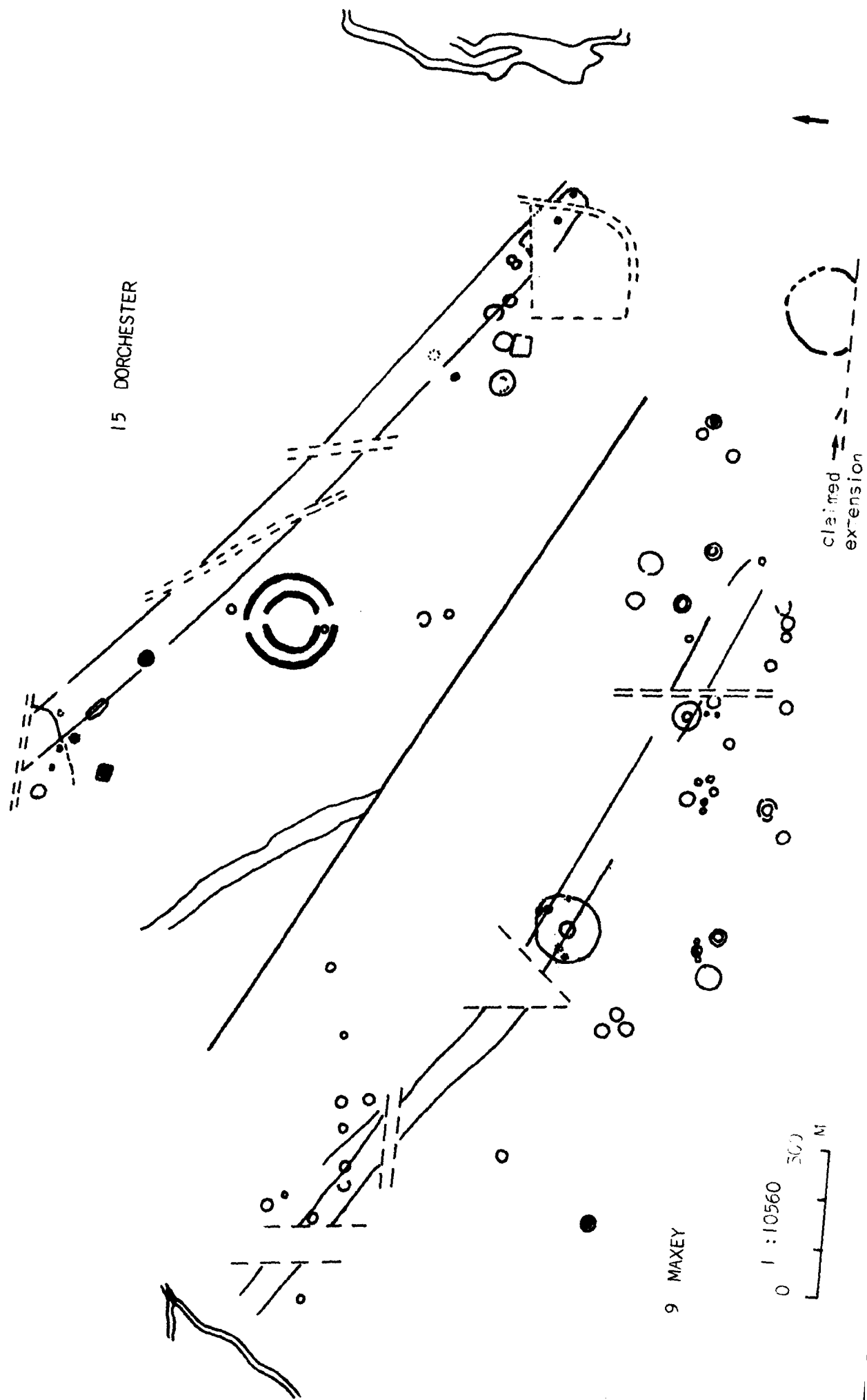


Fig.VIII

29 FORNHAM ALL SAINTS

2 SCORTON

(after Palmer with
additions)



i : 10560

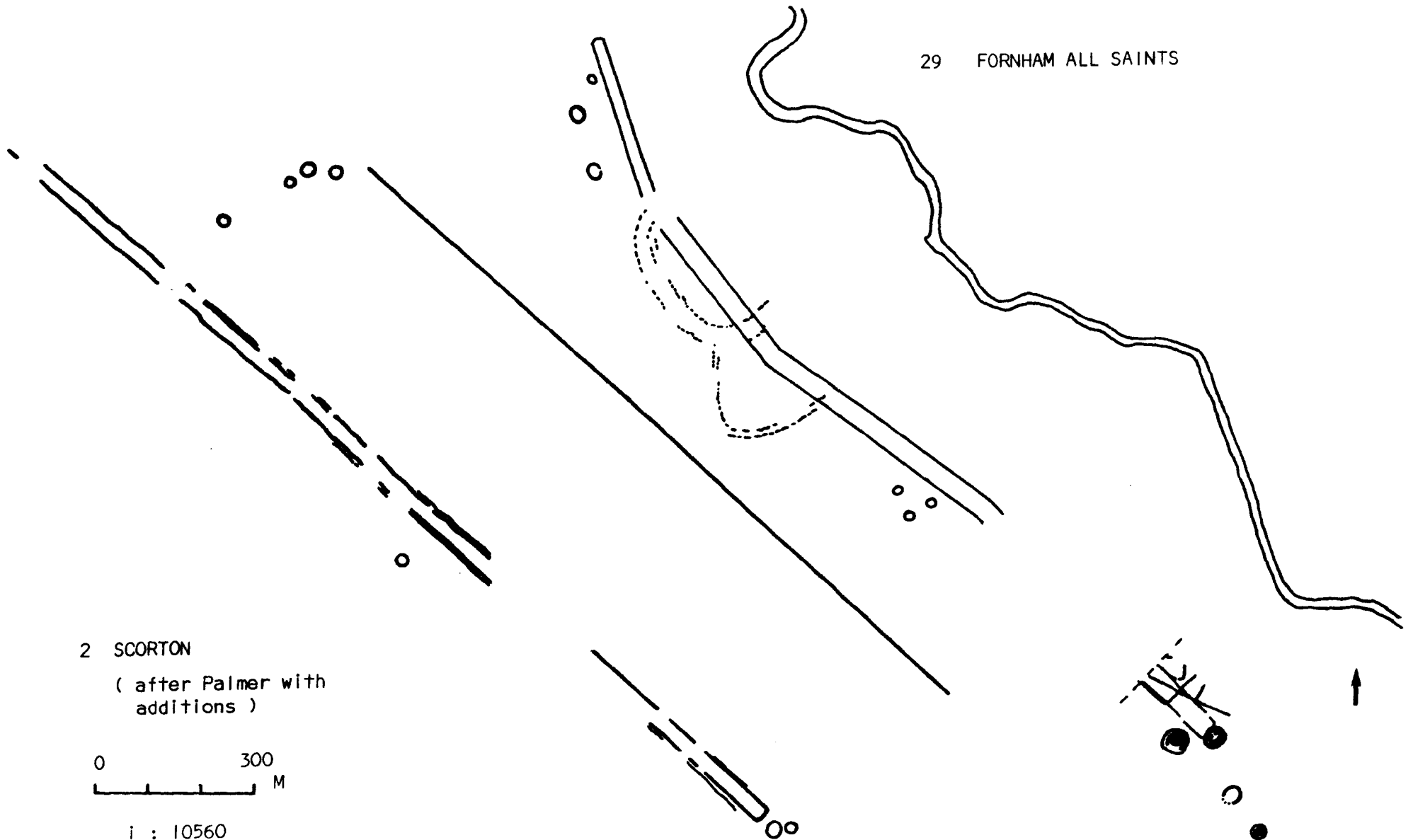
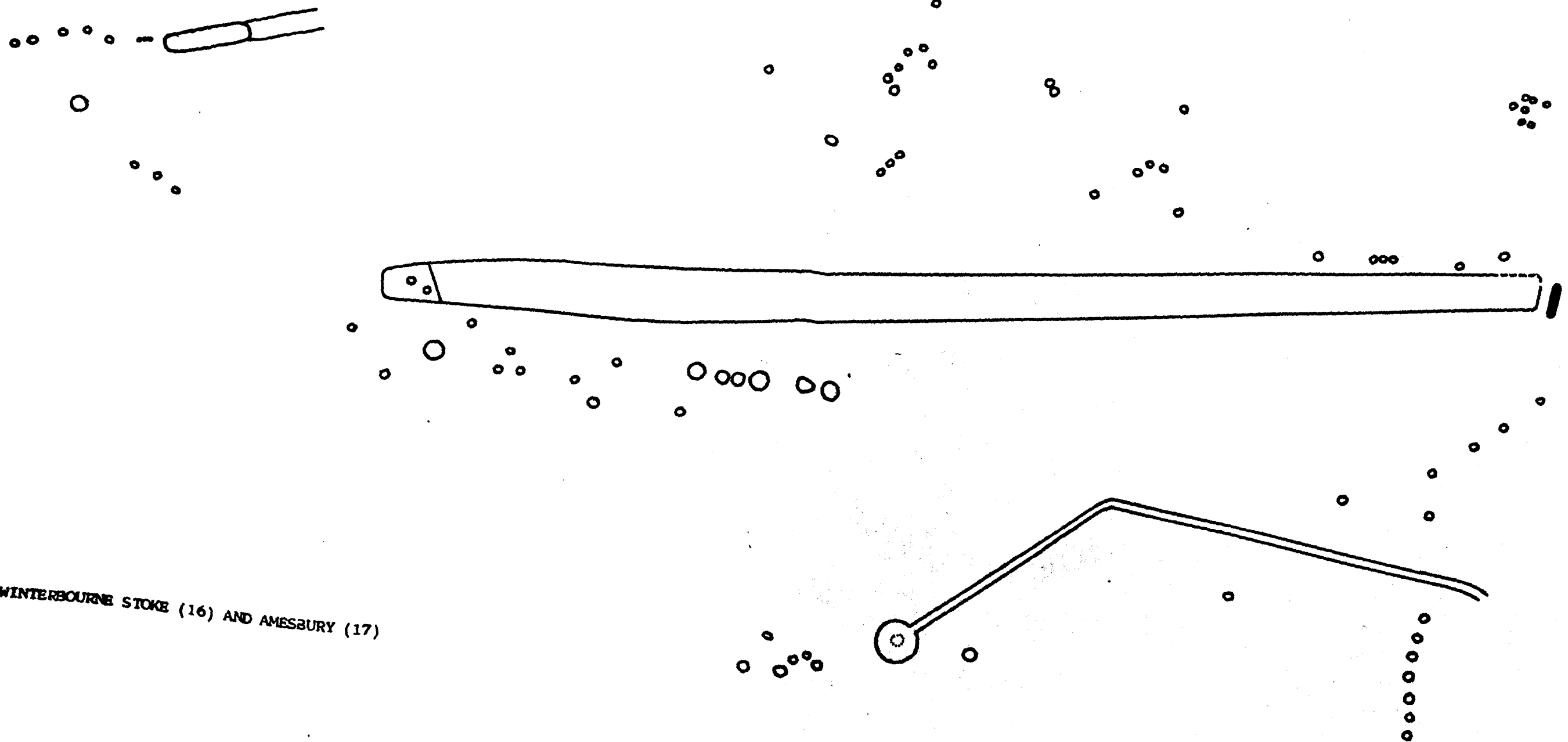


Fig.IX



X WINTERBOURNE STOKE (16) AND AMESBURY (17)

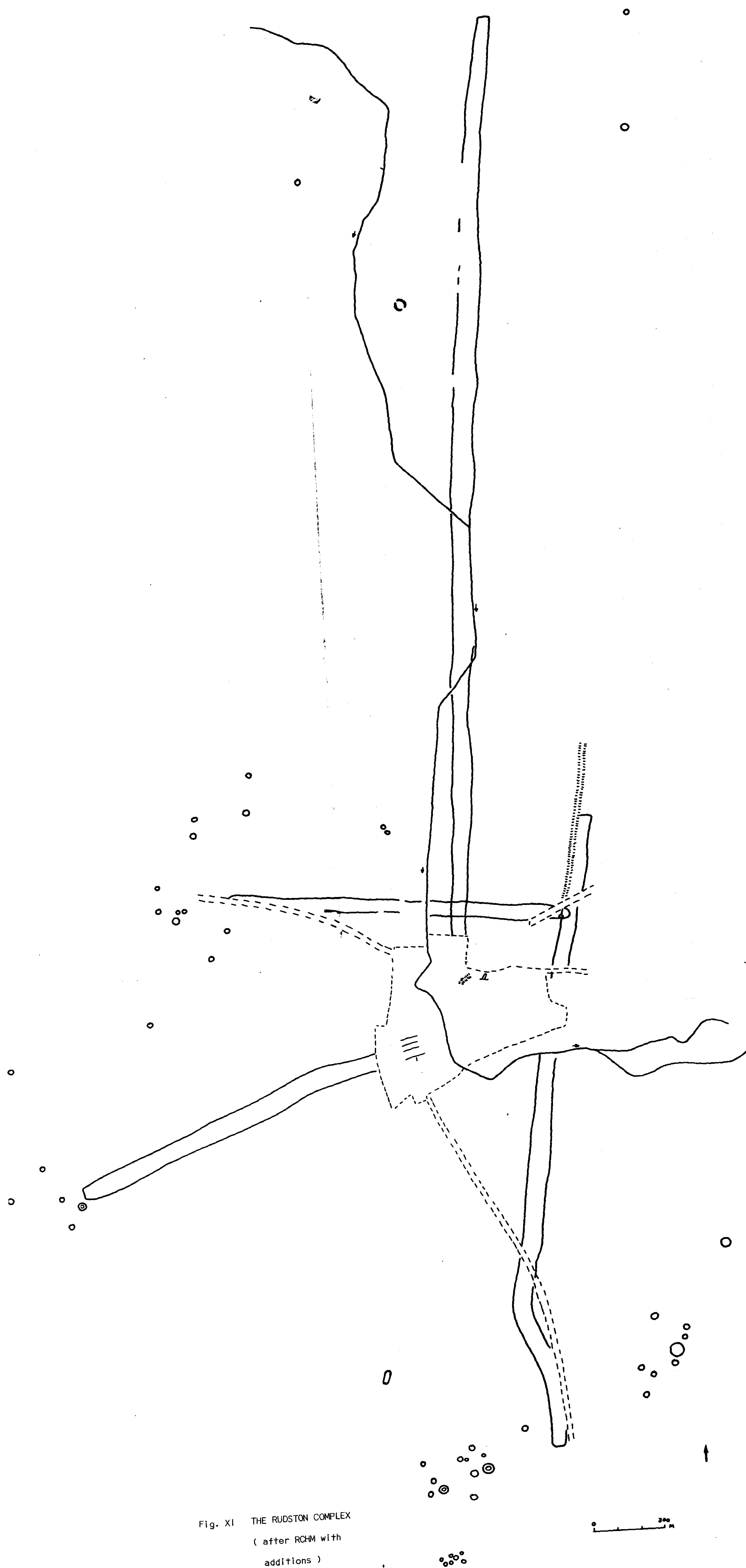


Fig. XI THE RUDSTON COMPLEX
(after RCHM with
additions)

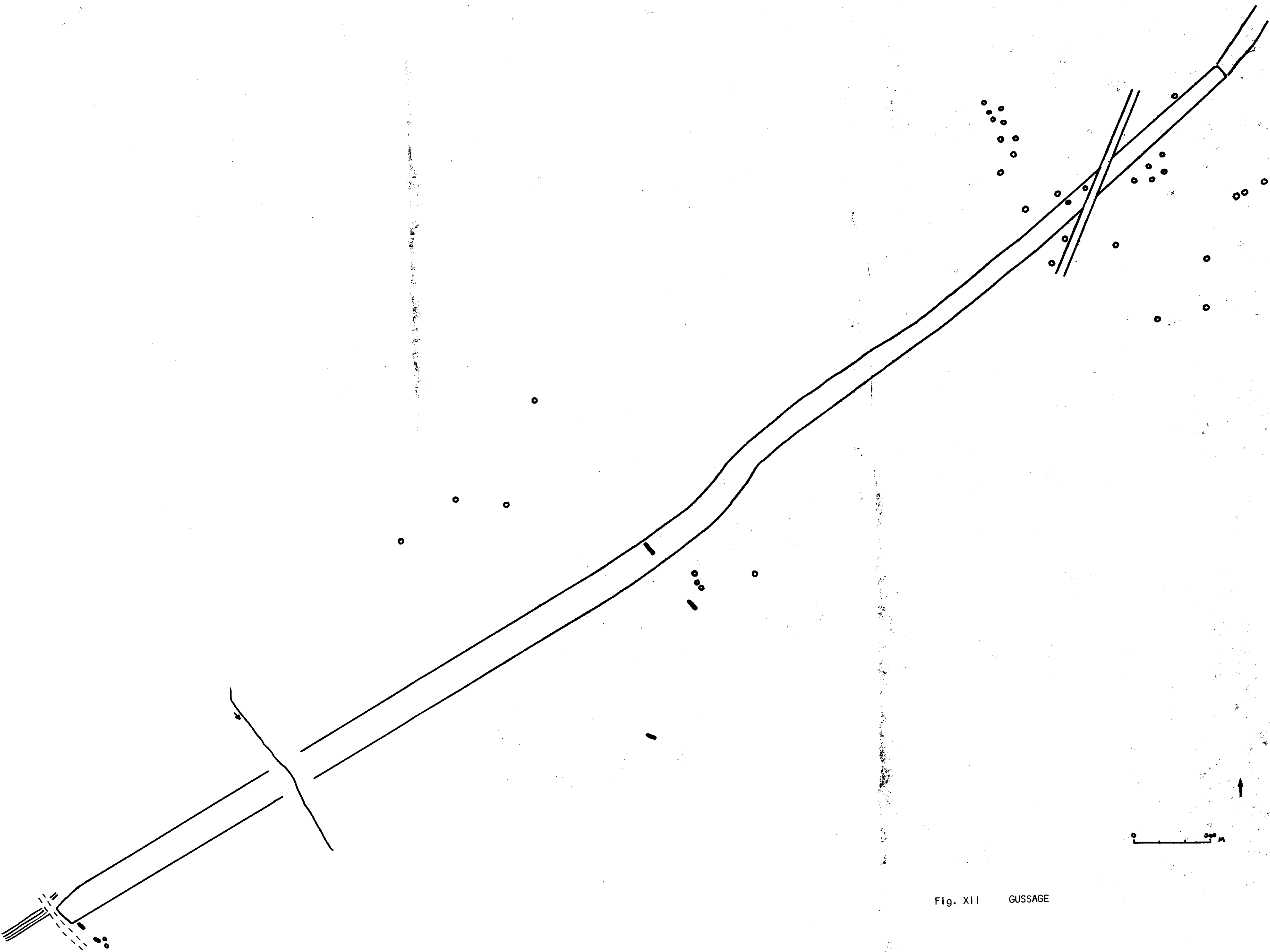
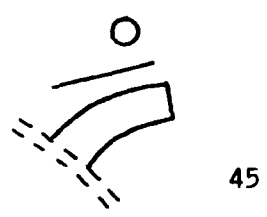
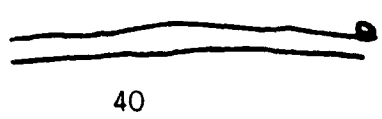


Fig. XII GUSSAGE



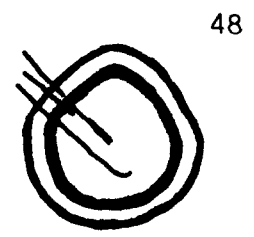
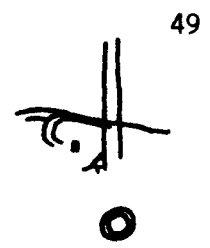
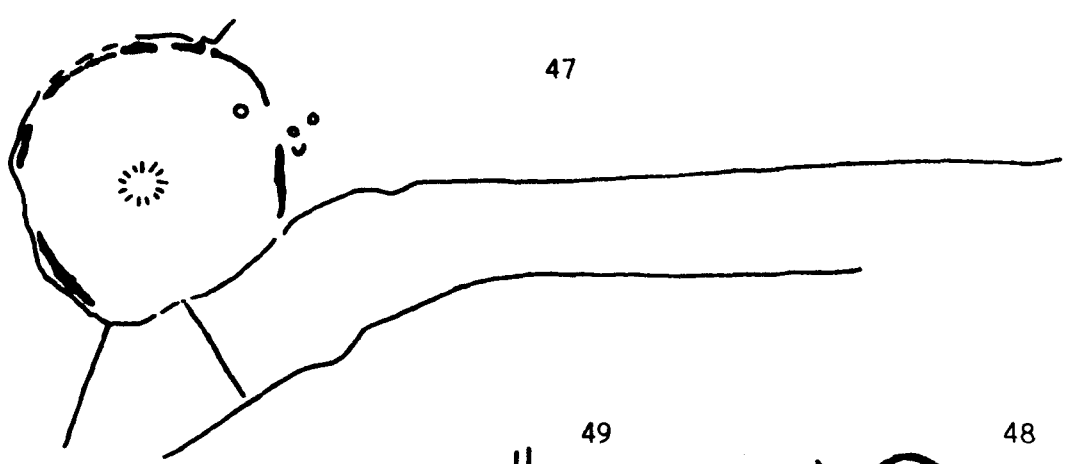
Fig. XIII PENTRIDGE

CATEGORY III (other sites in this category marked by * in
figs. I - V)



- 40 Fimber
- 44 Shillingford
- 45 Middleton

CATEGORY IV (DOUBTFUL SITES)



- 47 Duggleby
- 48 Ettington
- 49 Clanfield
- 50 Titchmarsh

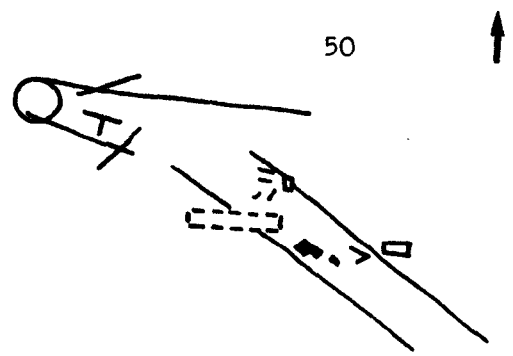
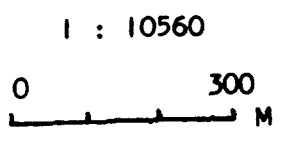
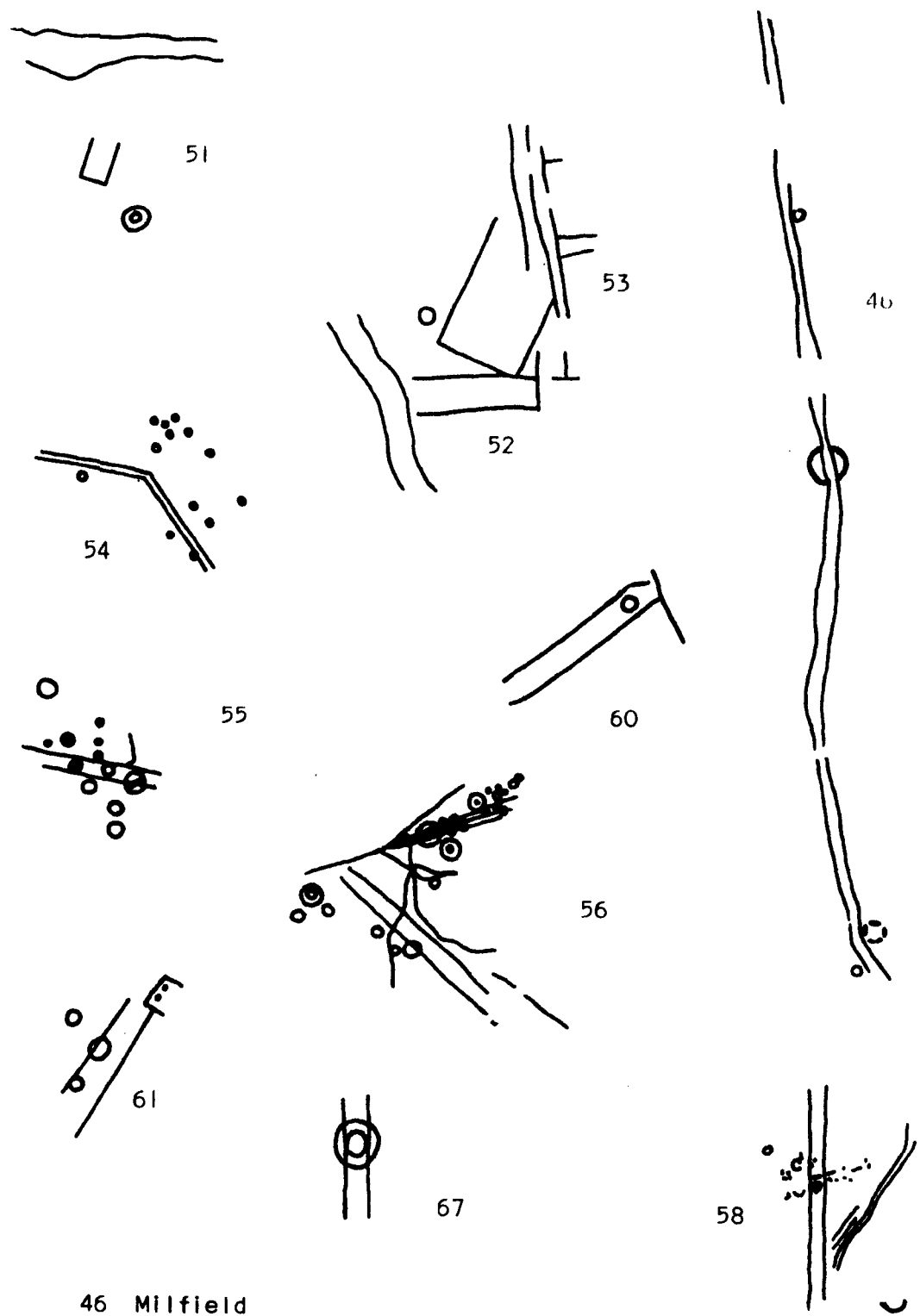


Fig.XIV



- 46 Milfield
- 51 Felmersham
- 52 Eynesbury
- 53 Eynesbury
- 54 Manea
- 55 Mount Bures
- 56 Wormingford
- 58 Great Holland
- 60 Abingdon
- 61 Goring
- 67 Stoke by Nayland
- 75 Bedfont

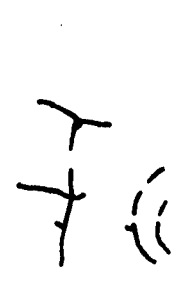
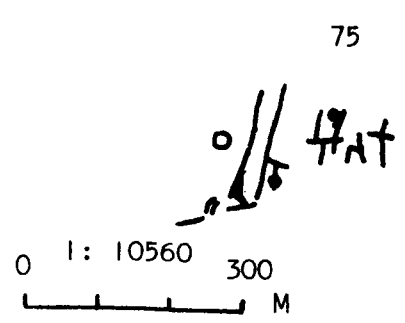


Fig. XV

SELECTED ROADS CLAIMED AS CURSUSES

- 65 Shepreth
- 68 Dedham
- 69 Lawford
- 70 Castle Coombe
- 71 Dorchester, Overy
- 72 Englefield
- 73 Upton Nervet
- 74 Stanwell

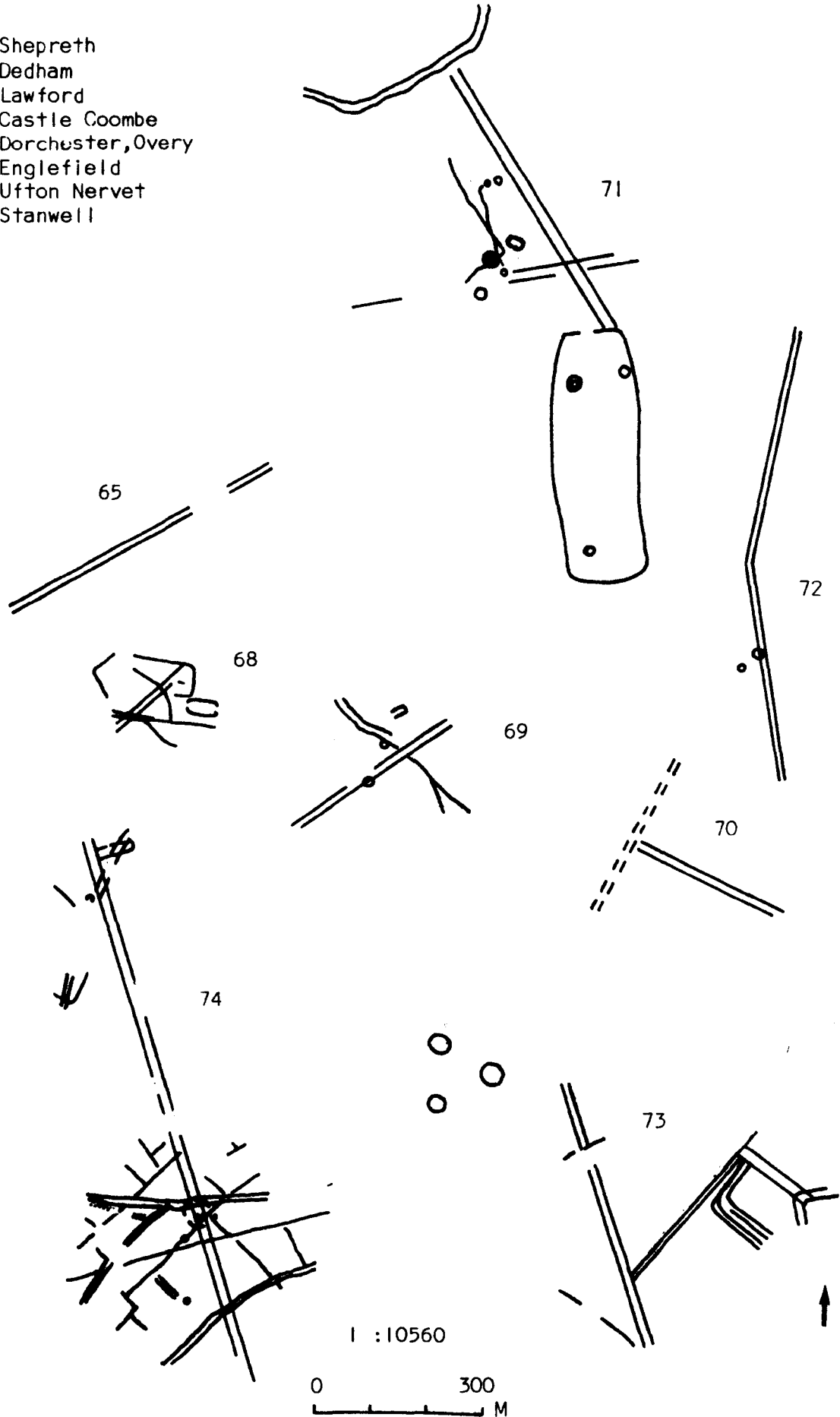
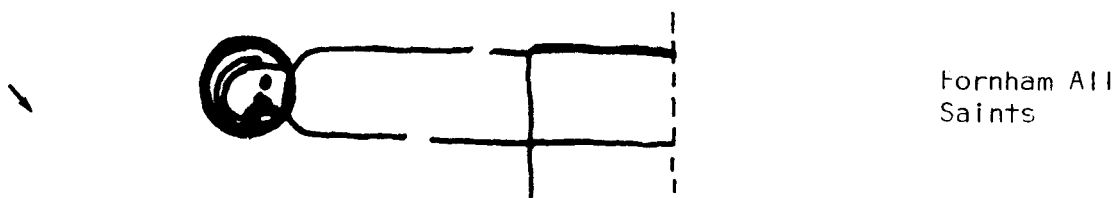
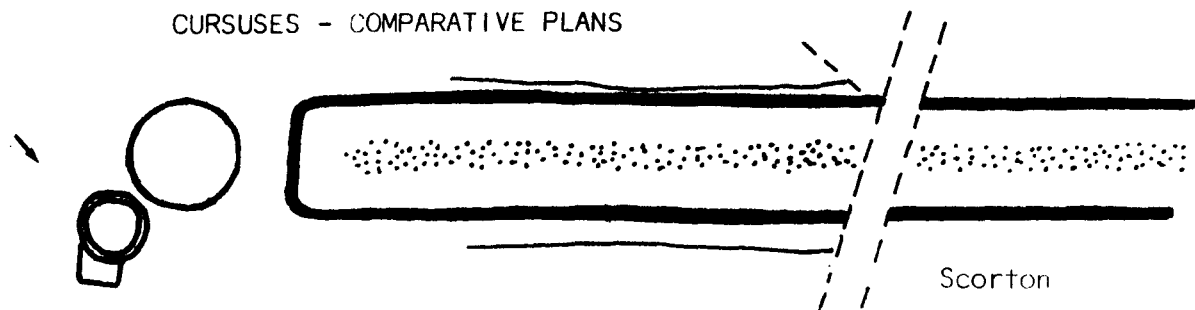


Fig. XVI

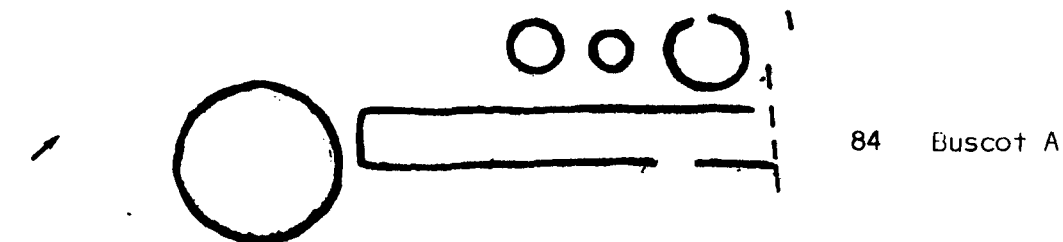
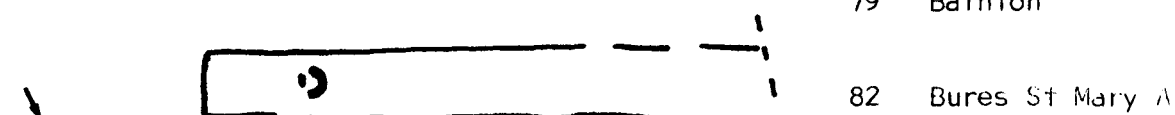
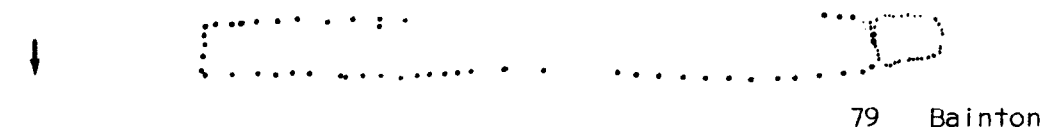
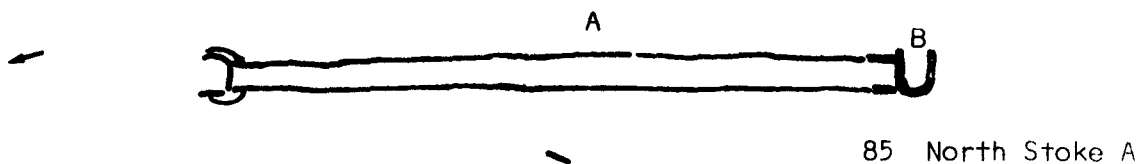
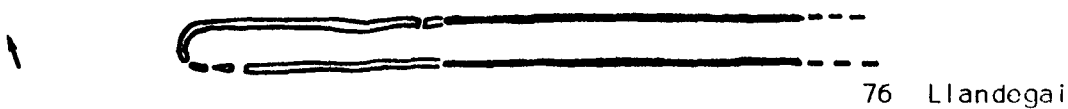
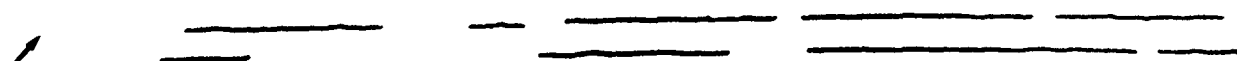
1 : 2500

SURVEY

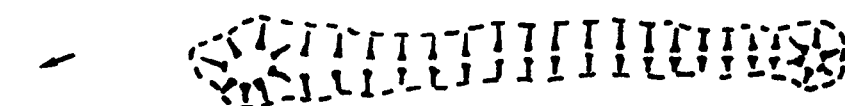
CURSUSES - COMPARATIVE PLANS



1 a) EXTENDED OBLONG DITCHES



Long Low - comparative plan



1 : 2500

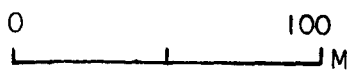
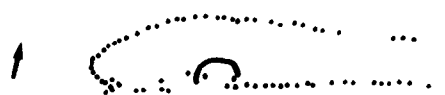


Fig. XVII

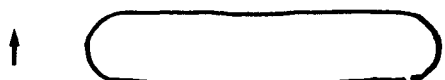
CROPMARK SITES

EXCAVATED OR EARTHWORK SITES

I a) Extended oblong ditches - intermediate range.



78 King's Bromley

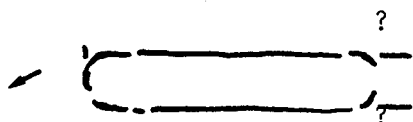


83 Stratford St Mary



80 Barnack

I b) Oblong ditches



89 Lockington



87 Fourmerkland



88 Ewart



91 Roughton



92 Misterton



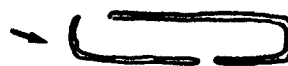
94 Norton



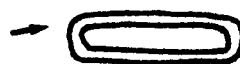
96 Cardington B



97 Cardington C



93 Charlecote



95 Caldecotte, Bow
Brickhill



86 Douglasmuir

1:2500

0 100 m

fig. XVIII

CROPMARK SITES

EXCAVATED OR EARTHWORK SITES



99 Pakenham



100 Long Melford A



102 Feering



103 Witham



104 Rivenhall



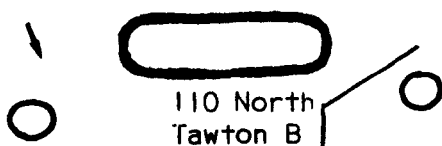
105 Lawford B



106 Lawford C



109 North Tawton A



110 North Tawton B



111 Nether Exe



98 Flempton



90 West Rudham



107 Dorchester VIII



108 Basingstoke

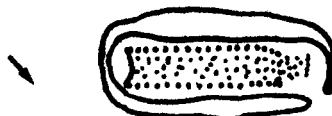
COMPARATIVE SITES



Julliberrie's Grave



Holdenhurst



Giants' Hills I

1:2500

0 100 m

fig.XIX

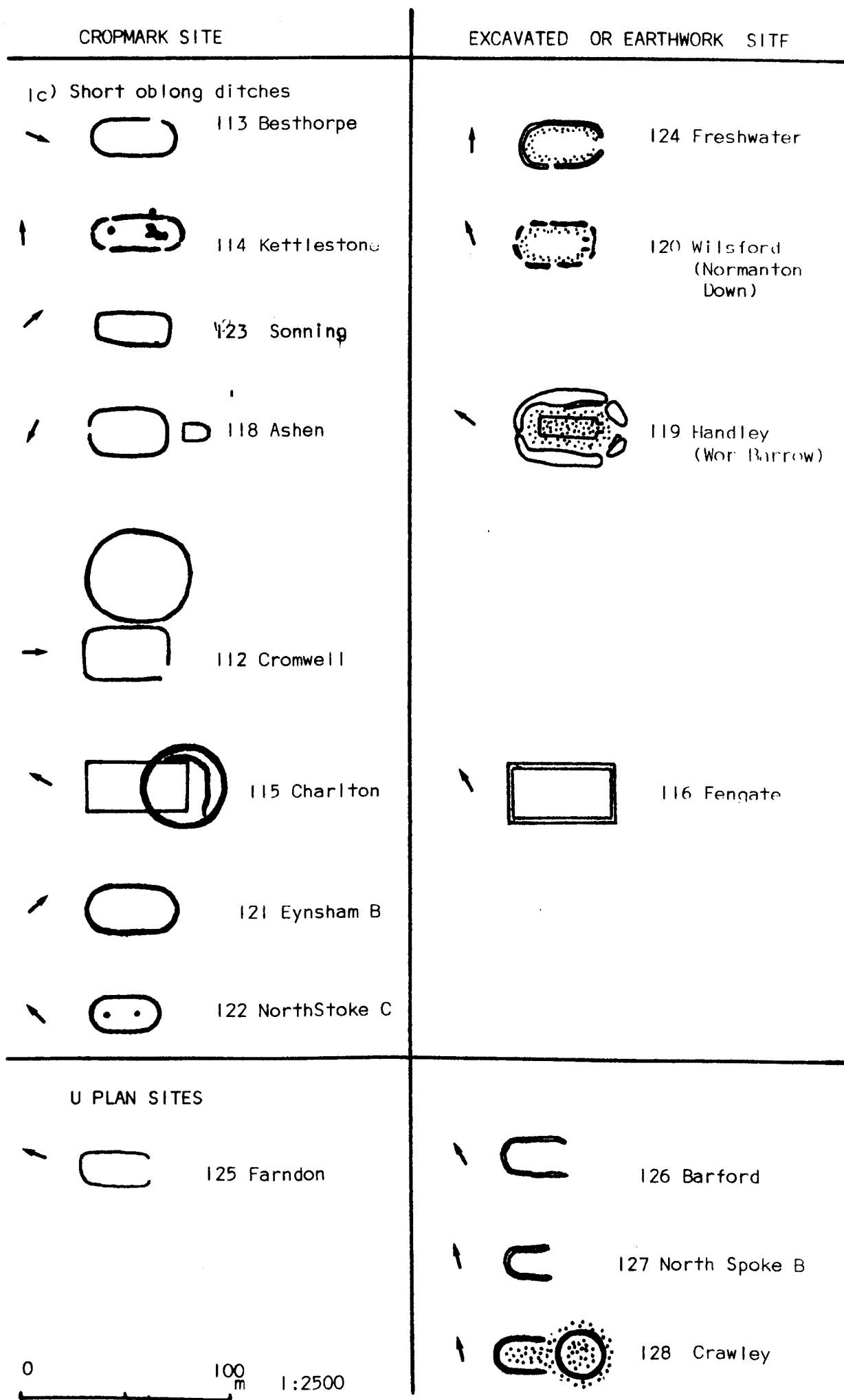
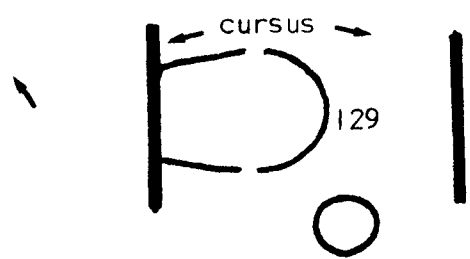


fig.XX

1 d) TRAPEZIFORM DITCHES (ALL CROPMARK SITES.)



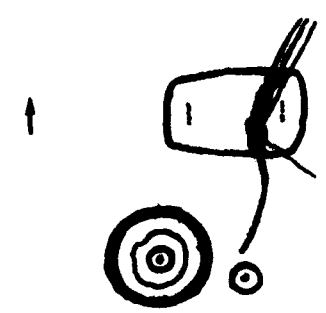
129 Aston



133 Long Melford B



131 Calstor St. Edmund



137 Dorchester, Overy



130 Marlingford



138 Purley A



134 Levington



135 Latton



132 Eynesbury
Hardwicke



136 Eynsham A

1 : 2500



Fig.XXI

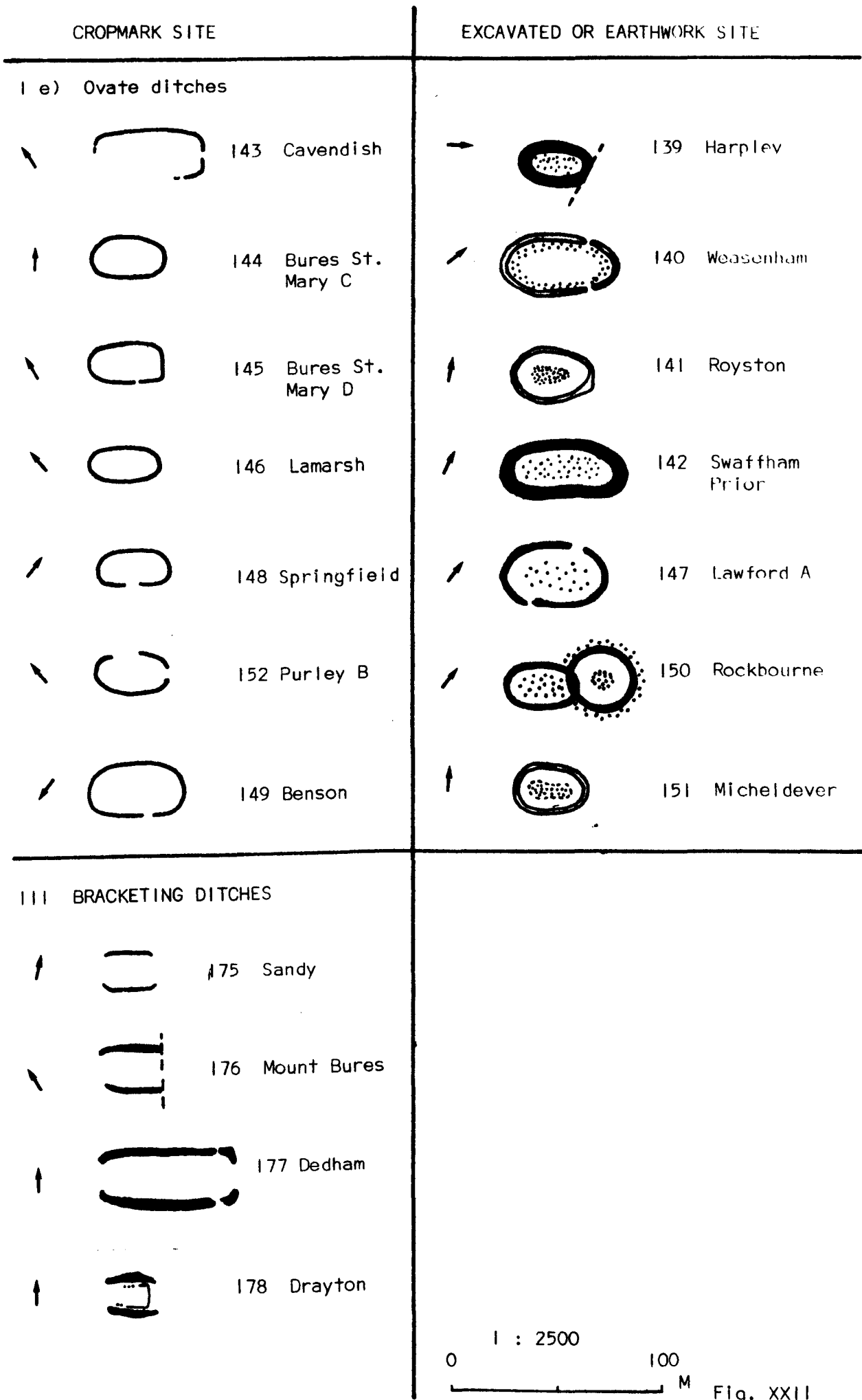


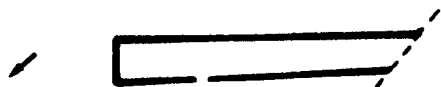
Fig. XXII

II UNCHARACTERISTIC OR DOUBTFUL SITES

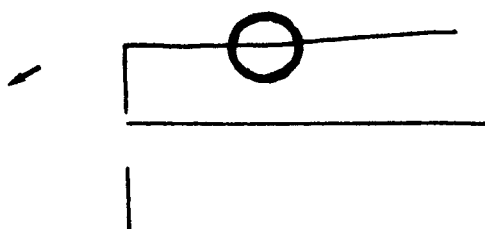
a) OBLONG DITCHES



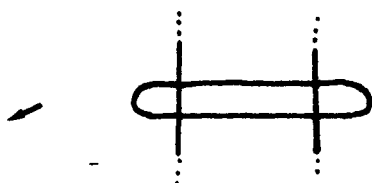
153 Inchtuthill



154 Burton Agnes

155 Peckleton
(after Hartley)

156 Cardington D



157 Bures St Mary B



158 Hinton Waldrist



159 Abingdon



160 Chilham



161 North Tawton C

0 1 : 2500 100 M

Fig. XXIII

UNCHARACTERISTIC OR DOUBTFUL SITES

11b) TRAPEZIFORM



162 Milfield



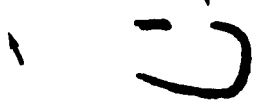
163 Rudston



164 Fiskerton



165 Exning



166 Bramford



167 Brightlingsea

11c) OVATE



168 Blyton



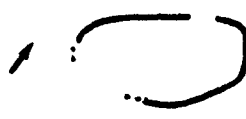
169 Stowe Nine Churches



171 Stoke by Nayland



172 Tolleysbury



173 Thorington



174 Sudbourne

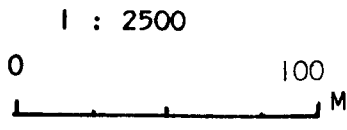


Fig.XXIV

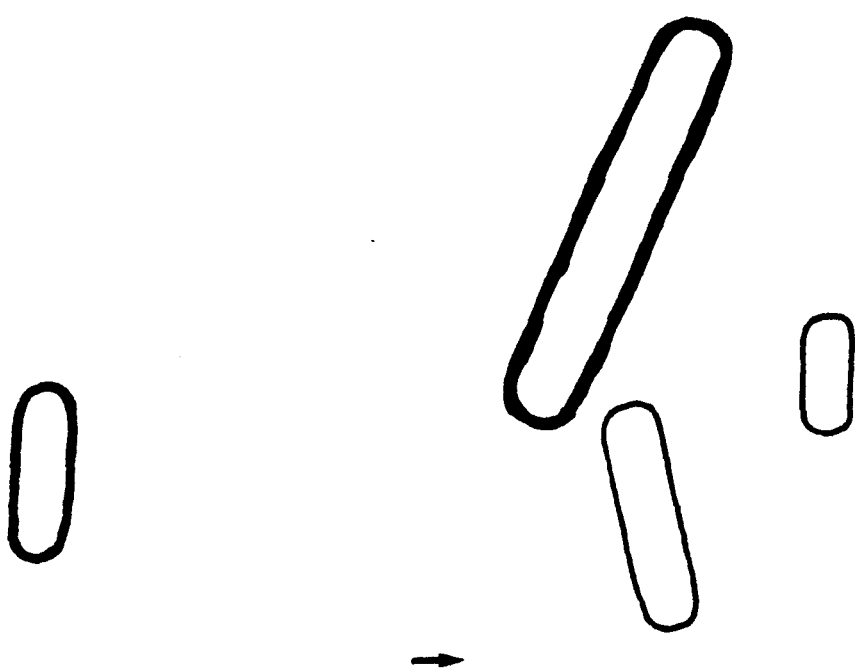
COMPARATIVE SITES

PRINCIPAL OBLONG DITCHES OUTSIDE MAINLAND BRITAIN

180 Aulnay aux Planches

181 Libernice

179 Tara



Xanton Chassenon (Vendée),
Le Grand Champs I
(after Marsac et al 1982, figs 6, 15 & 16)

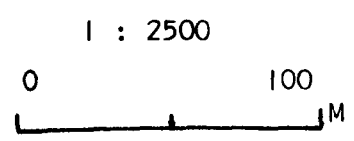
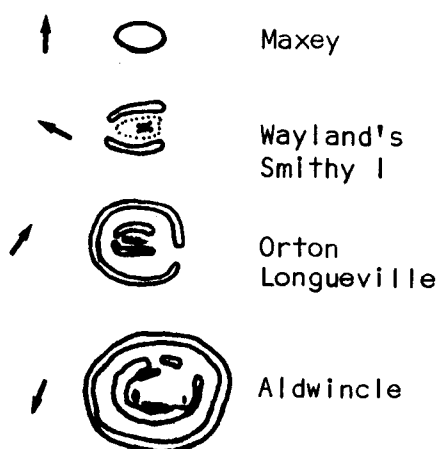


Fig. XXV

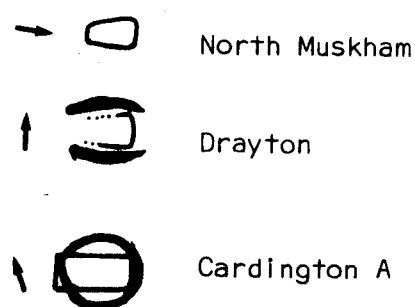
COMPARATIVE SITES

a) MORTUARY STRUCTURES

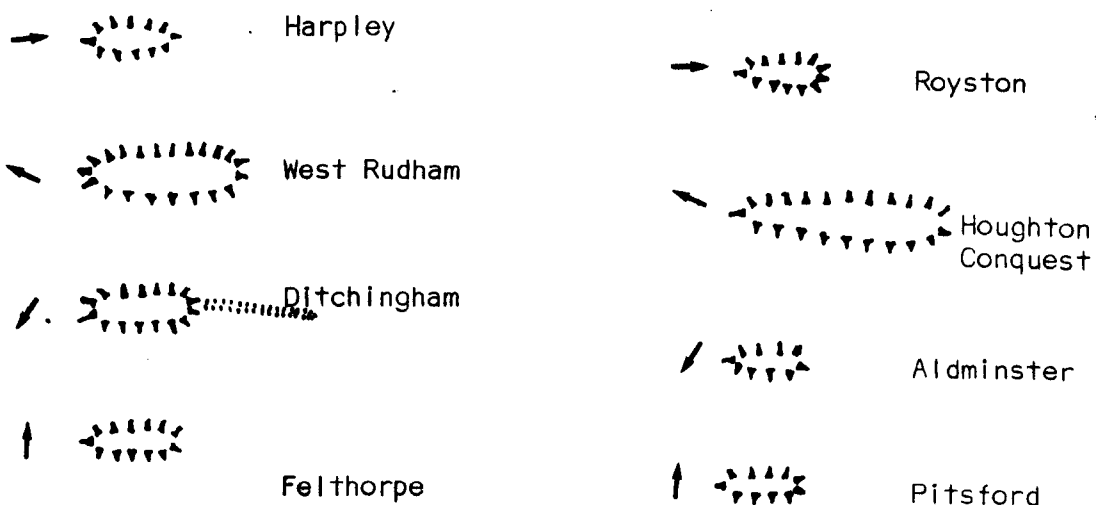
Excavated



Cropmark



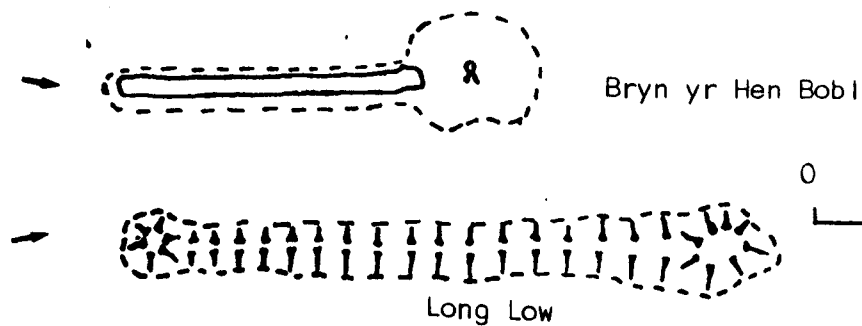
b) MOUNDS



c) MEDWAY TOMBS

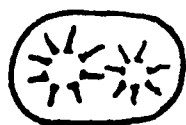


d) LINEAR BANKS



0 1 : 2500

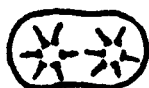
ENCIRCLED MULTIPLE ROUND BARROWS



Lambourne 10



Amesbury 44



Lambourne 8



Wilsford 15/16



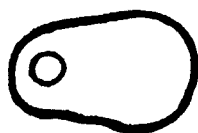
Amesbury 91



Lynsham C



Stanton Harcourt



Radley 4/4a



Drayton



North Stoke D



Radley 16



North Stoke E

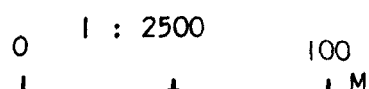
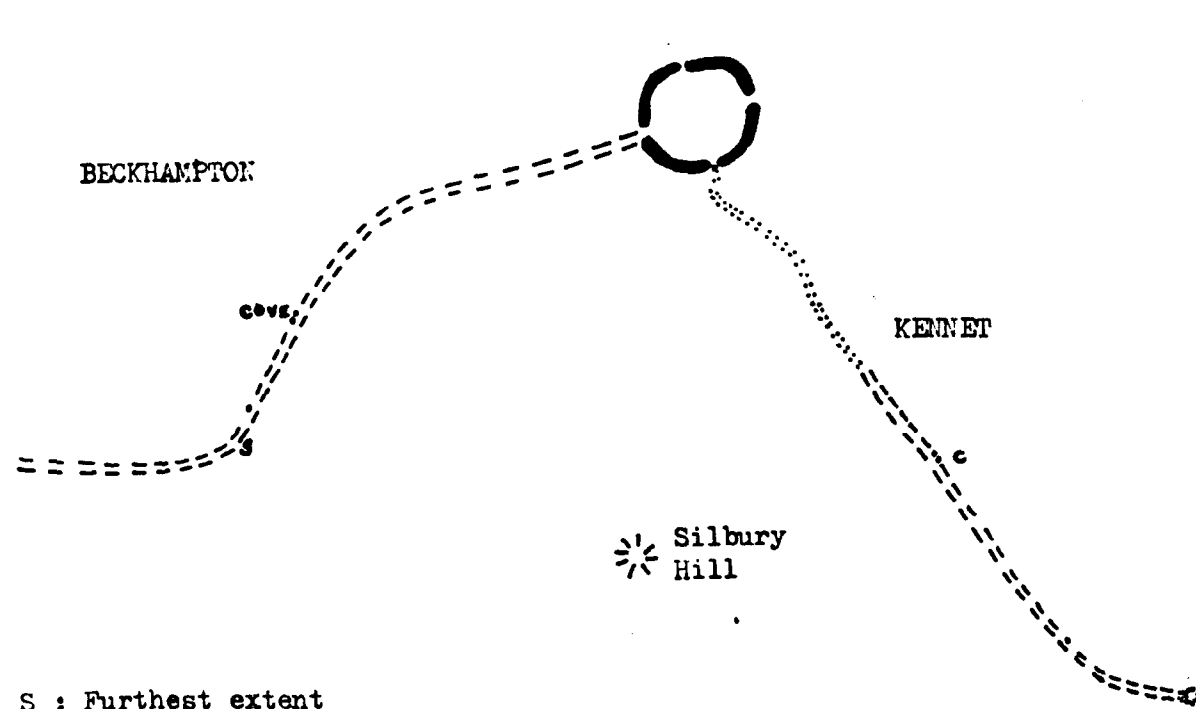


Fig. XXVII



S : Furthest extent
of stones traced
by Stukeley

C : Stukeley's
Kennet cove

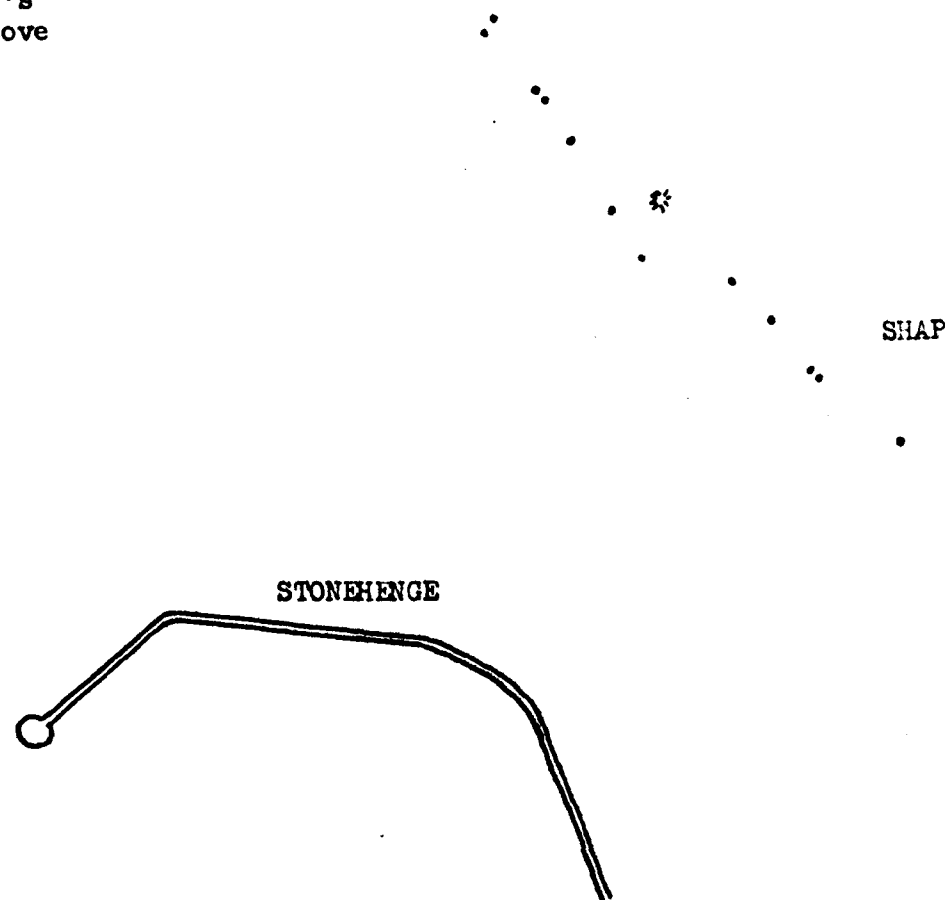
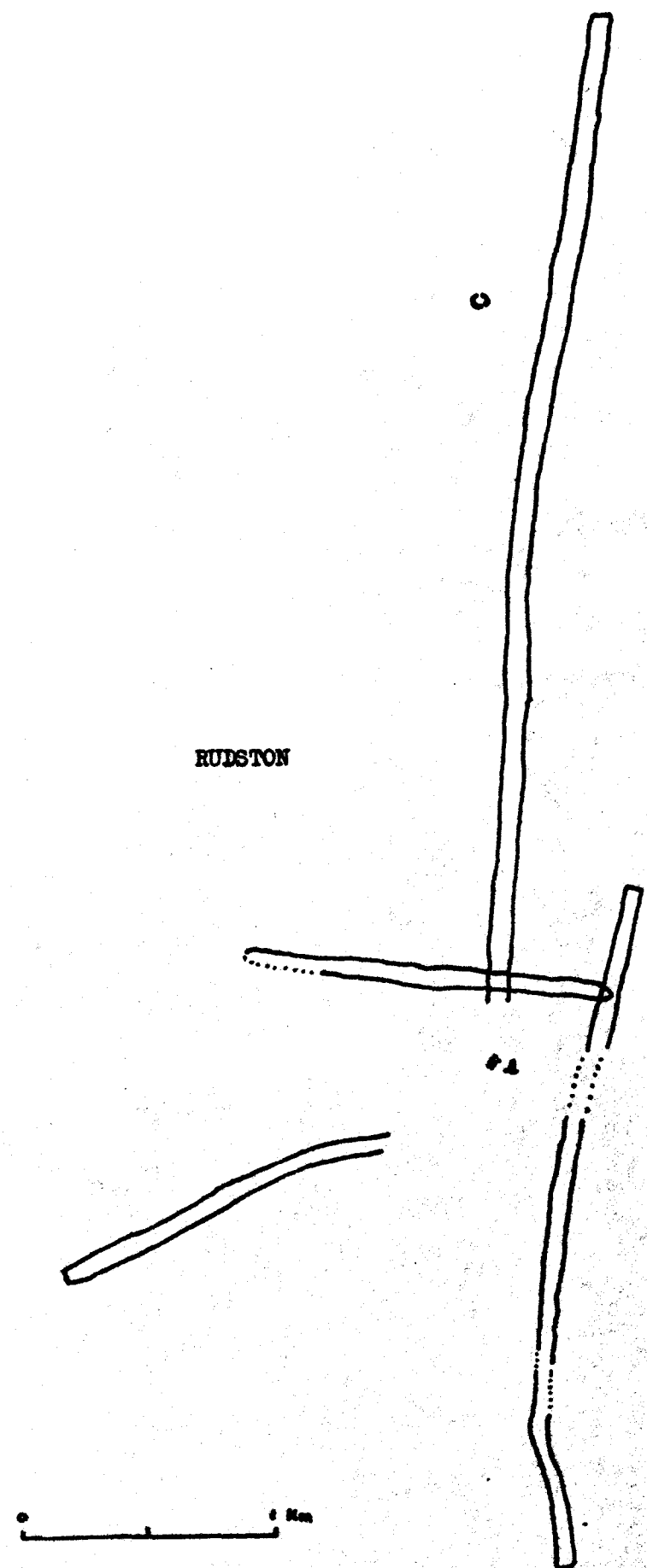
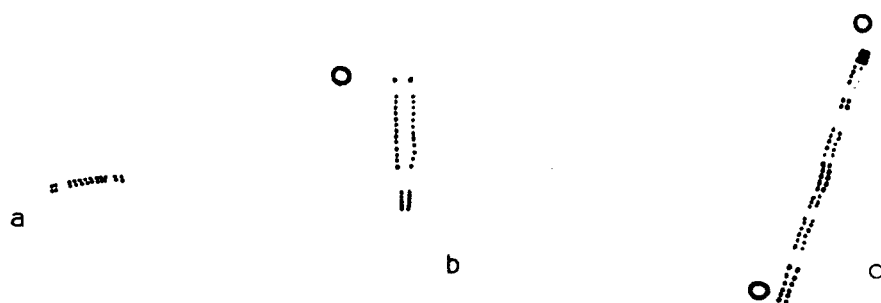


Fig. XXVIII MAJOR AVENUES AND
CURSUSES: COMPARATIVE PLANS

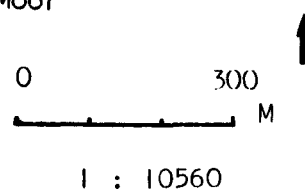


0 1 2 Miles

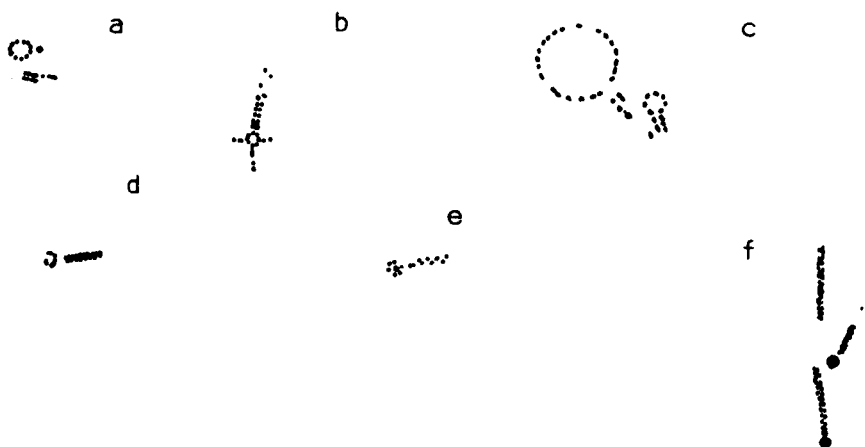
PIT AVENUES



- a) Milfield
- b) South Muskham
- c) Thornborough
- d) Easington High Moor



STONE AVENUES



- a) Cerrig Duon
- b) Callanish
- c) Stanton Drew
- d) Rhos y Beddau
- e) Lacre D
- f) Shovel Down, Dartmoor

Fig. XXIX

LE MENEC AND KERMARIO ALIGNMENTS, CARNAC
(Outer limits accurate at this scale but
internal rows schematically rendered :
after Thom 1977 & 1978)

Compare with cursuses: figs. I - XVI

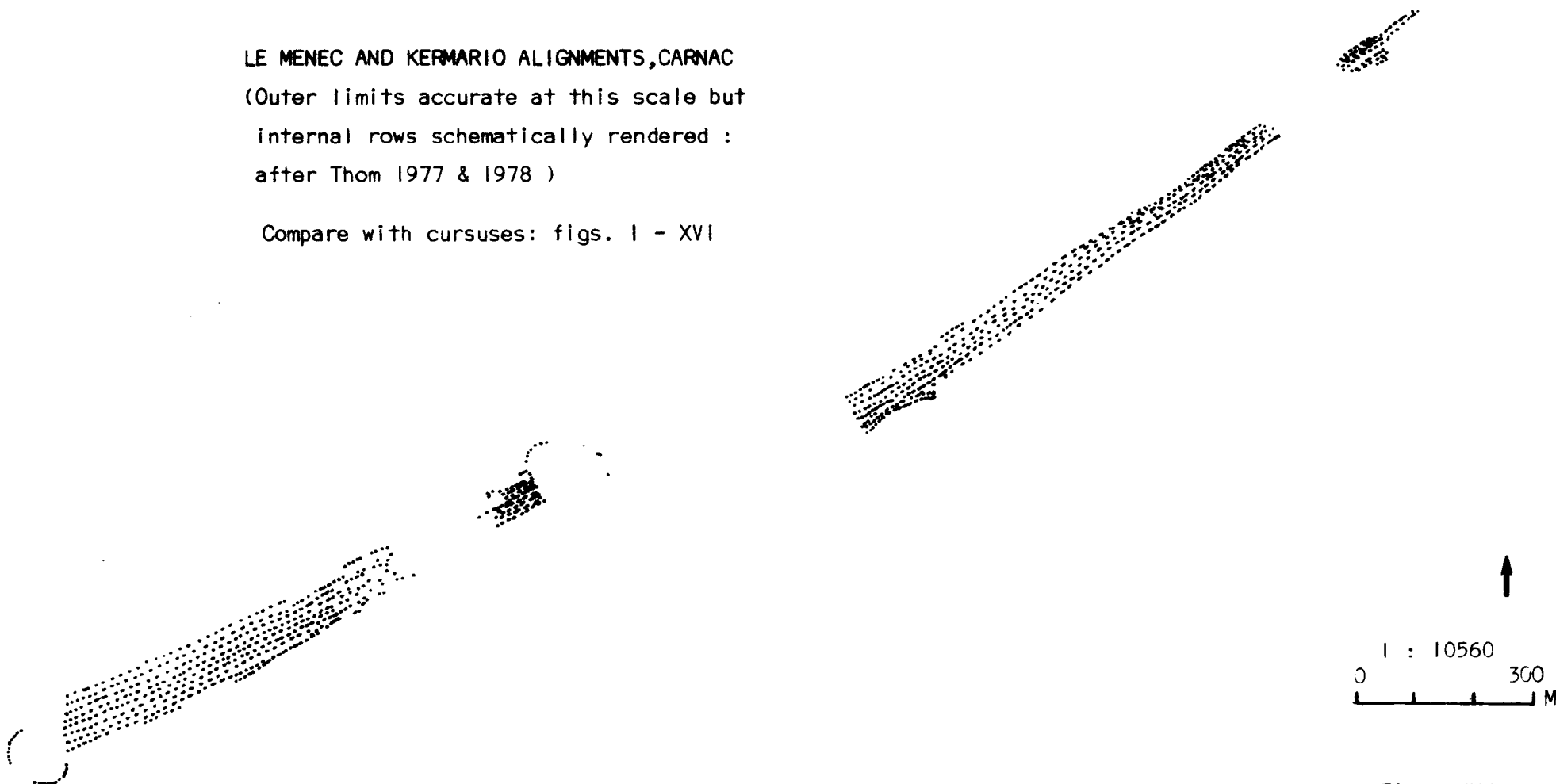
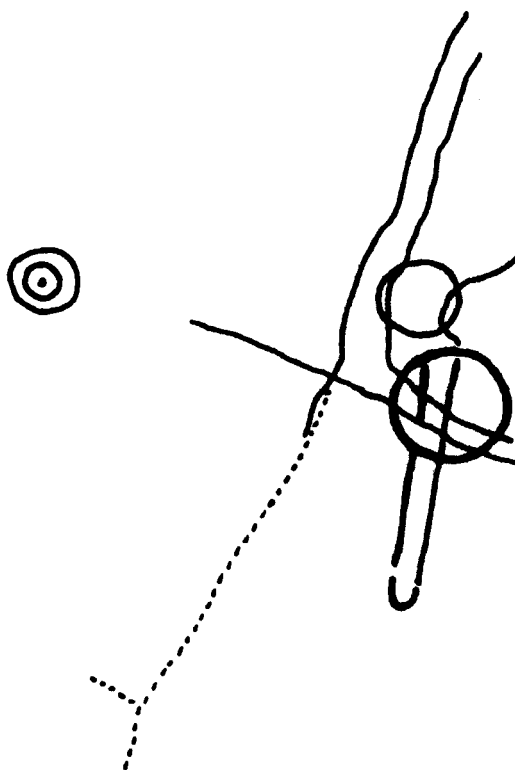


Fig. XXX

ADDENDUM



1 : 2500

Plotted from NMR SK9802/4 - 6

Ketton, Leicestershire SK980022

Site located 7/7/1984 by G. Foard, Northants Arch. Unit. Ring ditches known for a considerable period of time but oblong ditch only revealed by drought conditions. Site appears to be of Cople / Llandegai type but is unusually narrow (c.9m) and its northern terminal is uncertain; the marks of the western ditch are also less precise than those of the eastern. Morphologically the site finds a close parallel in that at Misterton in the same county.

WEST PUTFORD, DEVON

Information received from Francis Griffith, Devon Arch. Unit - Jan. 1985.

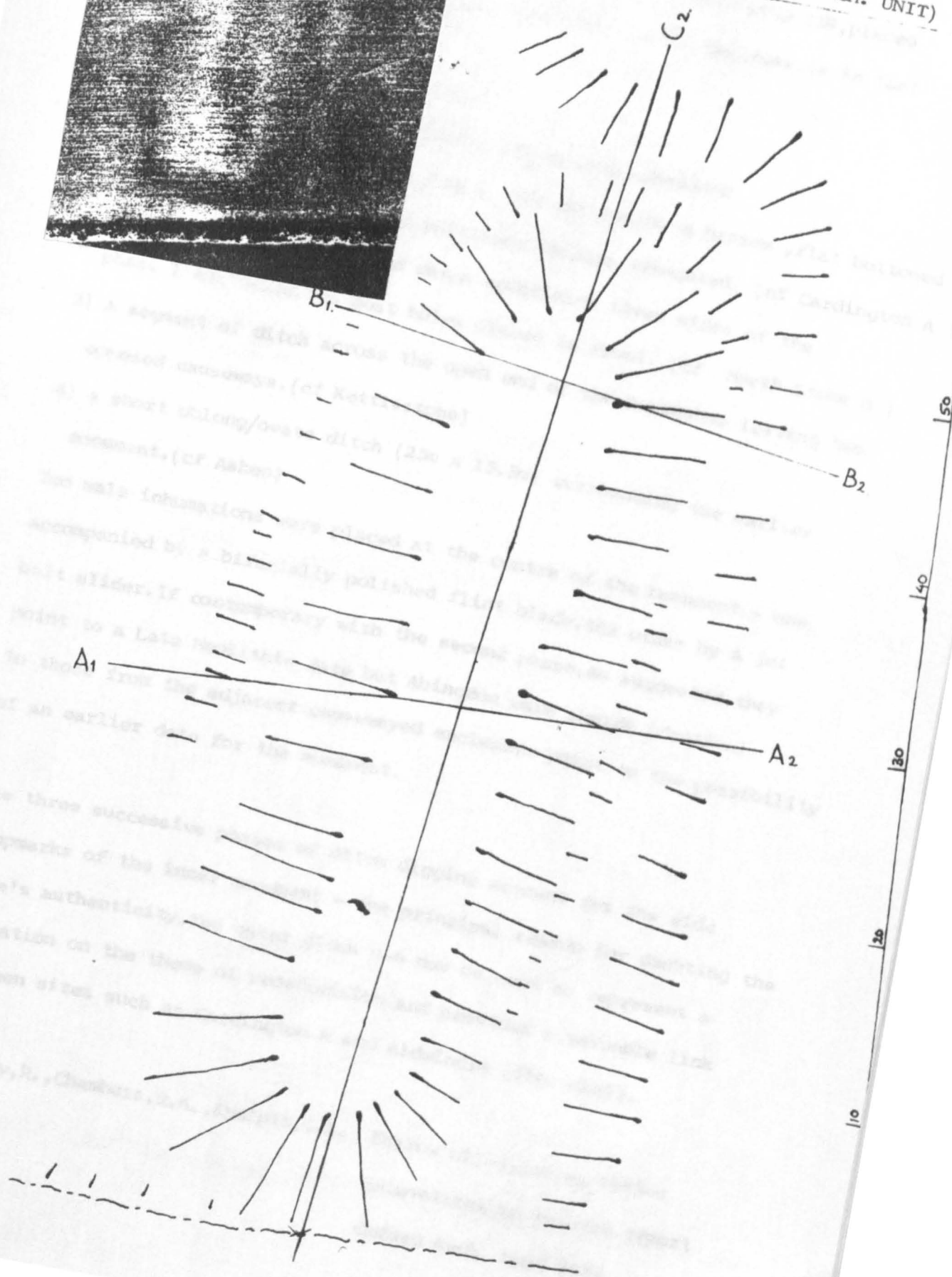
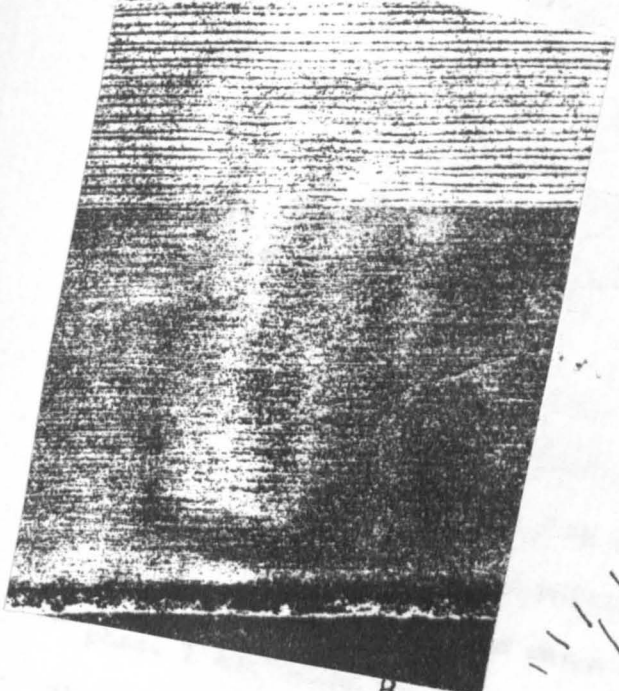
Photographed by John Hampden - NMR SF 1508 (25/4/79)

Soil marks of a comparatively wide (3m+) encircling ditch of oblong plan with a possible causeway by one 'corner.' Lighter marking across the entire central area, with the exception of a dark axial strip, and extending beyond the ditch, are indicative of a heavily eroded and spread long mound, the turf core of which has been exposed. Field observation has confirmed this: a survey by A. Alden (1980) records a low mound (c60m x 20m) delimited by a very slight depression marking the line of the encircling ditch.

The site cannot be accurately plotted from the present photograph but size and morphology suggest a parallel with site B at North Tawton, 20 miles SE. Unlike it though, and the other Devon oblong ditches, it has no accompanying ring ditch. A long mound of identical proportions but 2.5m high survives at Morwenstow 10 miles to the west. Trenching there has, however, revealed evidence of only a single, wide quarry ditch along one side of the site (Higginbotham, 1977.)

The West Putford mound indicates that other oblong ditches in Devon are likely to represent long barrows, which reduces the novelty of their distribution; parallels should it seems be sought amongst southern long barrows (eg Holdenhurst) rather than with the farther flung oblong ditches of the Midlands and East Anglia. Significantly the pattern of an accompanying ring ditch so marked at North Tawton and Nether Exe is most closely replicated amongst Dorset long barrows (fig. 7.5)

SURVEY OF THE WEST PUTFORD LONG MOUND - A. ALDEN (DEVON ARCH. UNIT)



ABINGDON (corpus number:159)

Work recently published in interim form reveals that site 159, placed in category II (uncharacteristic/doubtful) in the gazetteer, is in fact of Neolithic date.

Evidence for four phases of construction were revealed:

- 1) a small square enclosure (16m x 10m) defined by a narrow, flat bottomed trench (1m) probably for a palisade. Corners truncated. (cf Cardington A)
- 2) a larger horseshoe shaped ditch redefining three sides of the phase 1 enclosure. Two post holes placed in front. (cf North Stoke B)
- 3) a segment of ditch across the open end of the horseshoe leaving two opposed causeways. (cf Kettlestone)
- 4) a short oblong/ovate ditch (25m x 15.5m) surrounding the earlier monument. (cf Ashen)

Two male inhumations were placed at the centre of the monument - one accompanied by a bifacially polished flint blade, the other by a jet belt slider. If contemporary with the second phase, as suggested, they point to a Late Neolithic date but Abingdon ware sherds identical to those from the adjacent causewayed enclosure point to the possibility of an earlier date for the monument.

The three successive phases of ditch digging account for the wide cropmarks of the inner monument - the principal reason for doubting the site's authenticity. The outer ditch can now be seen to represent a variation on the theme of redefinition and provides a valuable link between sites such as Cardington A and Aldwinckle (fig. XXVI).

Bradley, R., Chambers, R.A., & Halpin, C.E. Barrow Hills, Radley 1983-4

Excavations; an interim report

Oxford Arch. Unit 1984

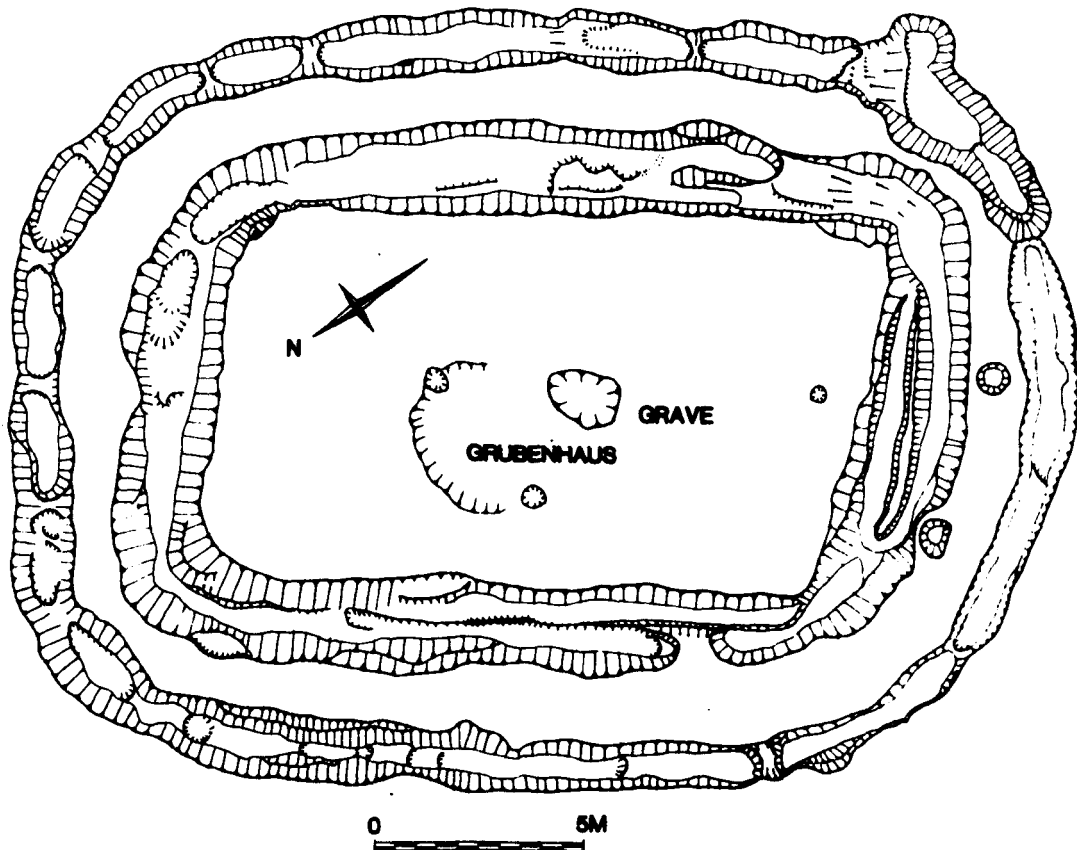


Fig. 2 Plan of the Neolithic long barrow after excavation. The central grave is pictured opposite

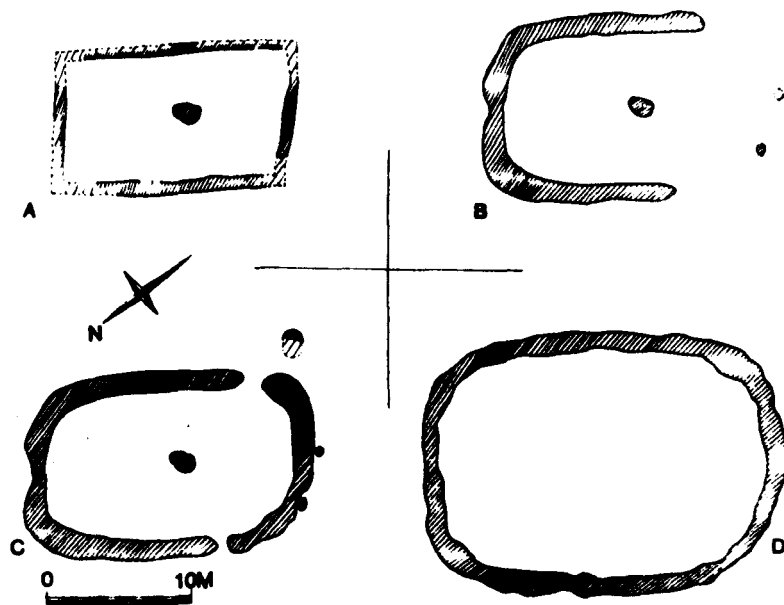


Fig. 3 Four stages in the construction of the Neolithic long barrow.

APPENDIX II

SURVIVING OR RECORDED LONG MOUNDS IN THE MIDLAND/EAST ANGLIAN REGION

(See also Table 7.4)

PARISH	PRESENT STATE	NGR	PRINCIPAL REFS.
1. <u>Excavated or characteristic long barrow sites</u>			
Dunstable	Destroyed	TL012222	Stukeley 1724,109; Dyer 1959, 14
Pegsdon	Virtually ploughed out	TL133311	Dyer 1959, 14
Leagrave	Heavily ploughed	TL057247	Dyer 1959, 14
Royston	Good preservation	TL342402	Phillips 1935b
West Rudham	Good preservation	TF810254	Sainty et.al. 1938; Hogg 1940
Harpley	Ploughed: now protected	TF809252	Lawson 1981, 36
Ditchingham	Good preservation	TM345913	Wainwright 1972, 4
Felthorpe	Good preservation	TG151176	Lawson 1981, 21, 36
Aldminster	Ploughed out	SP250516	Warwickshire SM Record; Thomas 1974, 17
2. <u>Probable sites</u>			
Swaffham Prior	Heavily ploughed	TL590620	RCHM 1972, 134; Taylor 1981, 109
Streatley	Destroyed	?TL086268	Dyer 1959, 14
Houghton Conquest	Good preservation	TL055404	OS Record Card
Pitsford	Good preservation	SP752678	Fereday 1949

PARISH	PRESENT STATE	NGR	PRINCIPAL REFS.
3. <u>Uncertain sites</u>			
Denton	Tree planted	SK863330	Camden (Gough Edn) 1806, 359; OS Record Card
Woodford I	Well preserved	SP962760	Hall & Hutchings, 1972, 2
Buckworth (2 sites)	Destroyed	TL137771 139769	Taylor 1977; Camb. SM Record
Haddenham	Preserved below peat	TL420768	Taylor 1981, 109
Luton 28	Destroyed	TL079232	Dyer 1959, 14
Wimbledon (Queen's Butts)	Destroyed	TQ225717	Whimster 1931, 62
4. <u>Unlikely sites</u>			
Ratcliffe (Shipley Hill)	Well preserved	SK625136	Posnansky 1955
Brampton Ash	Levelled	SP790860	
Newbottle	Preserved	SP524348	Avery et.al. 1967, 209-10, app.6 RCHM 1982 site 2, 105, & fig. 87
Daventry	?Destroyed	SP581611	RCHM 1980, site 32
Marshland St. James	Destroyed	TF523098	Norfolk SM Record; Earthwork report 1929, 9
Sutton	Preserved	SAU ref. SUT 020	Lawson 1981, 21

APPENDIX III

MODEL FOR THE RECONSTRUCTION OF TURF BUILT LONG BARROWS OF

WEST RUDHAM TYPE

To permit rapid calculation of the quantities of sand or gravel needed to cover hypothetical turf mounds of varying size, and hence to evaluate the potential of elongated ditches to provide this, the following model has been devised.

A simple mound of ridged profile with sloping ends is postulated (after the form of the Wareham earthwork - Evans and Limbrey, 1965), with length and width variable but height constant at 2 metres. The angles of the sloping ends are considered to remain fixed at 30 degrees (the angle of rest of dumped material) but the angles of the sides to vary with base width.

Four faces would therefore be produced - two triangular and two trapezoidal - the areas of which can be calculated using familiar theorems. The apex of the triangular end faces would always lie 4 metres above the base if mound height remained fixed at 2 metres and the slope at 30 degrees, and base length of the trapezoid faces would always exceed that of the ridge by 7 metres so long as end slope and height remained constant. The 'height' of the side faces can be calculated for any given mound width using Pythagoras' theorem (vertical height 2m; base length half proposed mound width; 'height' / hypotenuse square root of the sum of the squares on the other two faces.)

Multiplication of the total area of the four faces by 0.25 metres (the maximum surviving depth of capping on the West Rudham mound - Hogg, 1940, 323) produces an approximate measure of the volume of material required. This can be compared to calculations of ditch volume arrived at in the usual manner.

APPENDIX IV

PRINCIPAL AVENUES AND DOUBLE SETTINGS IN MAINLAND BRITAIN. (In ascending order of length).

<u>TYPE</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>COMPONENTS</u> (p = posts s = stakes ss = small stones ls = large stones)	<u>REFERENCE</u>
A) <u>LONG BARROW SITES</u>				
<u>Post Settings</u>				
Fussells Lodge	2.5m	2/3m	p	Ashbee 1966
Gwernvale	3.5m	2.3m	p	Britnell 1979
Waylands Smithy I	5.0m	2/3.5m	p	Atkinson 1976
<u>Post Avenues</u>				
Kilham	18m	6.7m	p	Manby 1976, 126
Kemp Howe	40m+	-	p	Brewster 1969, 13
B) <u>ROUND BARROW/RING DITCH SITES</u>				
<u>Post Settings</u>				
Six Wells 267	0.6/0.8m	1.8m	s	Fox 1941, 122
Bleasdale	2.7m	5/7m	p	Varley 1938, 160
Barford	3.5m	1/1.75m	s	Oswald (ed) 1969, 27-33
Canford	3.5m	3.5/4.5m	s	Case 1952
Poole I	5/6m	0.5/2.0m	s	Ashbee 1951
<u>Stone Avenues</u>				
Moor Divok ?	26m	4-7m	ss	RCHM 1936
	6m	"	"	"
DARTMOOR				
(All double rows, with or without cairns.				Worth 1946/47 (references
Order after Worth).				Dartmoor 1967, new edition,
				David & Charles).
Erme Pound	165m	-	ss	Worth 1953, 206
Spurrell's Cross	113m	1m	ss	" " 206
Penn Beacon	7.3m	-	ss	" " 207

Trowlesworthy	130m	1.4m	ss	Worth 1953, 209
Black Tor	290m	-	ss	" " 213
Hartor (N)	137m	1.5m	ss	" " 213
Sharpitor (N)	102m	1.8m	ss	" " 213/4
Sharpitor (E)	36.5m	0.3m	ss	" " 214
Merrivale A	182m	1.2m	ss	" " 215
Merrival B	263m	1.0m	ss	" " 215
Shuggledown A	182m	1.0m	ss	" " 219
Shuggledown C	118m	1.5m	ss	" " 219
Shuggledown E	145m	1.2m	ss	" " 220
Shuggledown G	148m	0.9m	ss	" " 220
Fernworthy A	64m	1.0m	ss	" " 222
Fernworthy B	104m	1.0m	ss	" " 224
Fernworthy C	32m	-	ss	" " 224
Assacombe	131m	1.7/2.0m	ss	" " 224
Watern Hill	144m	1.8m	ss	" " 225
Stannon	189m	-	ss	" " 225/6
Laughter	200m	1.2/1.8m	ss	" " 229
Conies Down	179m	-	ss	" " 231
Brent Fore Hill	125m	1.7m	ss	" " 234
Glasscombe	112m	1.7m	ss	" " 235
Cantrell	47m	1.7m	ss	" " 235

C) HENGE/CIRCLE SITES

Post Avenues

Durrington Walls (N)	25m	2m	s	Wainwright & Longworth 1971 43/4 fig. 17
Meldon Bridge (henge related)	35m	5m	p?	Burgess 1976, 153 - 171

Stone Avenues

Stanton Drew II	32m	10m	ls	Grinsell, 1956
Lacra D	46m	1.0m	ss	Dixon & Fells, 1949
Rhos y Beddau (possibly group D)	49m	1.8/3.6m	ss	Thom 1967, fig 12.9 (b)
Callanish	82m	6.4/8.2m	ls	Henshall, 1972, 138/9
Stanton Drew I	103m	13/14m	ls	Grinsell, 1956
Broomend of Crichtie	? 366/412m	?18.3m	ls	Ritchie, 1920, 158/60

Beckhampton	1700m+	?15m	ls	Smith, 1965, 216/7 (Bodleian: Gough Maps 231 (Ms. Eng. Misc. b65 Smith, 1965, 185/7, 206/16 Stukeley, 1776, 42/3 RCHM, 1936, 206. Clare, 1978
Kennet	2500m	15m	ls	
Shap	? 3200m	? 21m	ls	
<u>Earthen Avenues</u>				
Stonehenge	530m(1st section)	23m		RCHM, 1979a
	2500m(overall)	25/30m		
Milfield	1750m	15/30m		Harding, 1981, 89/93, 100
D) <u>FREESTANDING SITES</u>				
<u>Post Avenues</u>				
Swarkes ton	12m	0.8/1.6m	s	Greenfield, 1960
Milfield	88m	2.5m	p	Harding, 1981, 115/9, fig 11
Easington (W)	260m	10m	pits 2/3m diameter	Spratt, 1982, 183
Easington (E)	80m	10m		
South Muskhams	220m	20m	?p	St. Joseph, 1977, 145
Thornborough	350m	10/12.5m	?p	St. Joseph, 1977.
<u>Stone Avenues</u>				
Yelland	35m	2m	ss	Rogers, 1932
Cerrig Duon	40m	5m	ss	Grimes, 1936, 108.
Hwylfa'r Ceirw	90m	2.5m	Contiguous ss	RCHM, 1956, 117.

APPENDIX V

PRIORITIES FOR FUTURE WORK

Whilst not a normal feature of such studies, final erosion of the at best vestigial remains of cursus structure makes it vital that priorities are established for the rapid and economical elucidation of questions relating to them before it is too late. The cursus problem is of course not a unitary one but composed of questions of environment and date as well as structure, so separate assessment within each area has been attempted. Resolution of the larger question - of purpose - is also felt more likely to be advanced in this manner, particularly since investigation of smaller, cognate sites is proposed, than by random clearance arising from the vagaries of development or quarrying.

Proposed action has been ranked according to the degree of threat posed to potentially superficial deposits and features, and to the size and nature of suggested work programmes.

STRUCTUREA Threatened sites where excavation is a priority

- i) Longbridge Warwick - most complete minor cursus left in Avon valley crossed by rapidly eroding former hedge bank/headland. Extent of deposit survival beneath this and in adjacent open field needs to be tested in view of possibility that cursuses of the area were related to local oblong ditches and originally possessed mounds.

B Sites where exceptional evidence is subject to steady plough attrition

- i) Cople - examination of ring ditch/extended oblong ditch

intersection to ascertain stratigraphic relationship of two sites and the likely form of the oblong ditch from study of the depth and fill of that arc of the ring ditch that crosses it.

- ii) Eynesbury-Hardwicke - after the destroyed Pakenham site, the only surviving elongated ditch to reveal clear evidence of quarry-like enlargement. Investigation to test hypothesis of two phase construction and relationship to structure.
- iii) Witham - most typical of two oblong ditches possessing evidence of internal palisade trenches. Investigation to establish if possible the nature of the backing to the palisade and to provide ditch profiles for comparison with other oblong ditches that lack palisade features.
- iv) Fornham All Saints - section across the cursus where afforded some protection by a hedge boundary (eg at northern edge of field containing SE terminal) to test possibility that originally possessed an axial mound.
- v) Holywood - testing of cropmark pits within cursus B to ascertain whether or not originally held posts.

C Safe sites where selective action or larger research programmes might resolve particular problems

- i) Surviving East Anglian/ Midland long barrows } Programme of geophysical survey (backed up by selected trial trenches) to establish ditch plans.
- ii) Medway tombs }
- iii) Kennet Avenue - geophysical survey of northern end to test possibility that originally extended as an independent monument.

DATEA Threatened sites where excavation is a priority

- i) Aston - ring ditch incorporated in cursus ditch line near SW terminal. Investigation imperative to recover potentially superficial primary burial that would provide t.p.q. for cursus.
- ii) Springfield - arc ditch around which cursus aligned. Artefacts predicted which would provide t.p.q. for cursus. (Excavation projected by Essex Arch. Unit)
- iii) Fornham All Saints - excavation of ring ditch intersecting south eastern cursus terminal to recover surviving evidence of date and to test stratigraphic relationship prior to total erosion. Ring ditch position unique and probability therefore that closely related in date to cursus.

B Sites where exceptional evidence is subject to steady plough attrition

- i) Fornham All Saints - causewayed camp/cursus intersection
- ii) Rudston - a) intersection of cursuses A & C and adjacent small ring ditch breaking ditch line of A within the terminal of C.
b) southern terminal of A to check evidence of Beaker date from bank and ditch.
- iii) Charlton - ring ditch/oblong ditch intersection and to recover primary burial from former as a basis for relative dating of BI series.
- iv) Bures St Mary - small ring ditch axially located within extended oblong ditch - probably an integral feature and likely concentration of artefacts.

C Safe sites where selective action or larger research programmes might resolve particular problems

- | | | |
|---------------------------------|---|---|
| i) Cardington B & C | } | Investigation of comparably sized monuments |
| ii) Barnack & Stratford St Mary | | of opposed form to establish chronological basis for distinction. |
| iii) Holywood A & B | | |
| iv) Dorchester | - | radiocarbon determinations from antler picks recovered from sites IV & XI that bracket cursus construction. |

ENVIRONMENT

A Threatened sites where excavation is a priority

- | | | |
|-------------|---|---|
| i) Holywood | - | trench across vestigial remains of terminal bank of cursus A to establish whether buried old land surface survives. |
| ii) Rudston | - | investigation prior to total erosion of old land surface recorded by Greenwell beneath southern terminal bank of cursus A.. |

B Sites where exceptional evidence is subject to steady plough attrition

- | | | |
|-----------------------|---|--|
| i) Fornham All Saints | - | examination of cursus where intersects cropmarks of former stream bed adjacent to causewayed camp. Possibility that alluvial deposits are of later date and preserve environmental evidence as at Sutton Courtenay/ Drayton B. |
|-----------------------|---|--|

C Safe sites where selective action might resolve particular problems

- | | | |
|--------------|---|---|
| i) Pentridge | - | retrieval of molluscan samples from surviving cursus bank on Bottlebush Down. Broken at several points for field access where cleaning up could economically reveal old land surface. |
|--------------|---|---|

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ABBREVIATIONS USED :

Aerial Arch.	Aerial Archaeology
ANL	Archaeological Newsletter
Ant. J	Antiquaries Journal
Arch. Ael.	Archaeologia Aeliana
Arch. Cantiana	Archaeologia Cantiana
Arch. J.	Archaeological Journal
BAJ	Berkshire Archaeological Journal
Beds.A. J.	Bedfordshire Archaeological Journal
C. Arch	Current Archaeology
Colchester Arch. Group Ann.Bull.	Colchester Archaeological Group: Annual Bulletin
DAJ	Derbyshire Archaeological Journal
E. Ang. Arch.	East Anglian Archaeology
East Mid.Arch. Bull.	East Midlands Archaeological Bulletin
N A	Northamptonshire Archaeology
P D N H A S	Proceedings of the Dorset Natural History and Archaeological Society
P P S	Proceedings of the Prehistoric Society
Proc. Devon Arch. Ex. Soc.	Proceedings of the Devon Archaeological Exploration Society
Proc. Devon Arch.Soc.	Proceedings of the Devon Archaeological Society
P S A S	Proceedings of the Society of Antiquaries of Scotland
R C A H M (Scot)	Royal Commission for Ancient and Historical Monuments (Scotland)
R C H M	Royal Commission for Historical Monuments (England and Wales)
T C W A A S	Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society
T L A S	Transactions of the Leicestershire Archaeological Society
Trans.Procs. Birm. & Warwick Arch. Soc.	Transactions & Proceedings of the Birmingham and Warwickshire Archaeological Society
W A M	Wiltshire Archaeological Magazine
Y A J	Yorkshire Archaeological Journal

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