

**BARKHALE CAMP,  
ARUNDEL,  
WEST SUSSEX**

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BARKHALE CAMP, ARUNDEL  
WEST SUSSEX

NMR NUMBER SU 91 SE 31

INDUSTRY AND ENCLOSURE IN THE NEOLITHIC

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## 1. INTRODUCTION

### *Summary*

*In 1995 the Royal Commission on the Historical Monuments of England (RCHME) undertook an archaeological survey of the Neolithic causewayed enclosure known as Barkhale Camp (National Monuments Record number SU 91 SE 31). The survey generally confirmed the results of previous fieldwork on the site, with the addition of some significant details, and aerial photographic analysis did not reveal any further information.*

In mid-December 1995 the Royal Commission on the Historical Monuments of England carried out an earthwork survey of Barkhale Camp causewayed enclosure, as part of a national project to record Industry and Enclosure in the Neolithic Period. Two Bronze Age barrows adjacent to the enclosure were also recorded. Subsequently an air photographic analysis of the enclosure was undertaken, which revealed little additional information. The site lies on the South Downs near Bignor Hill, in the parish of Arundel, in the Arun district of West Sussex (National Grid Reference SU 9758 1261).

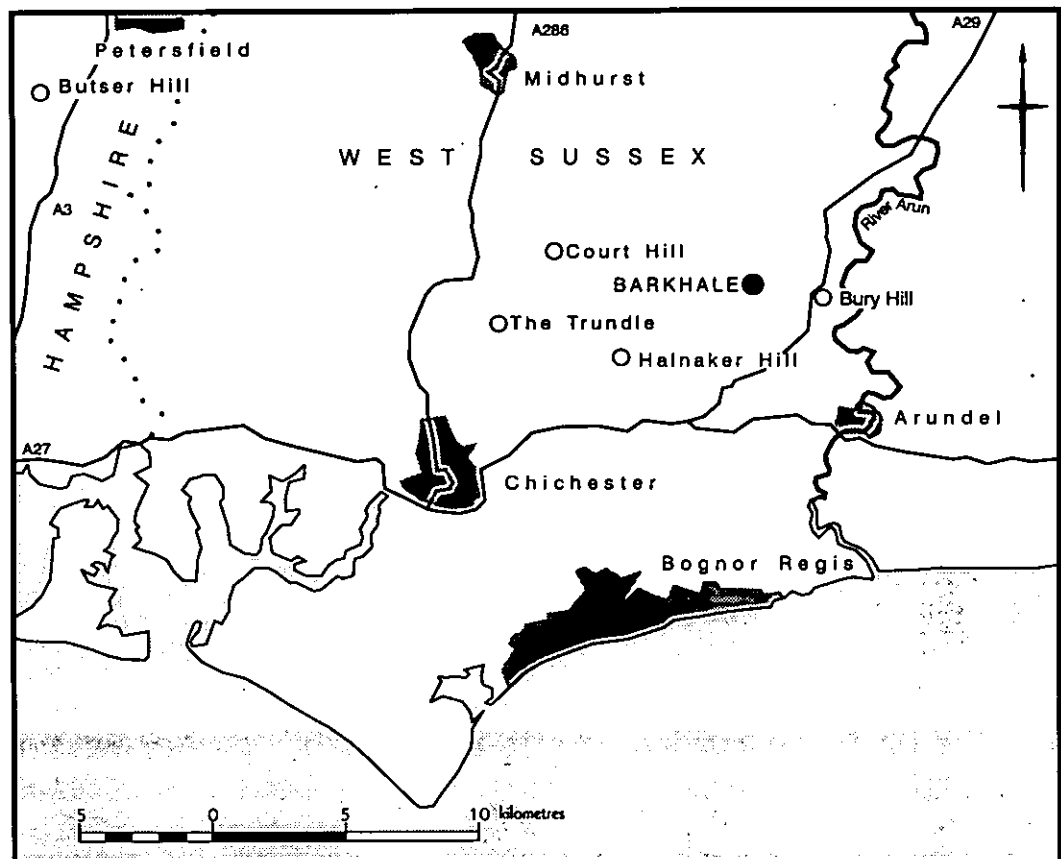
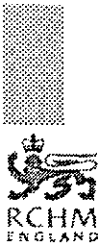


Figure 1:  
Location map



Bignor Hill forms part of the main ridge of the South Downs and the enclosure occupies a slight spur, sometimes called Barkhale Down, to the south-west of the main hilltop. The higher northern end of the spur reaches 207m above OD and commands broad - but not panoramic - views over the surrounding landscape. The views to the south and west are now partly obscured by woodland, as they may well have been in the Neolithic period (Thomas KD 1982). Barkhale Camp is located towards the southern end of the spur, some 5m below the highest ground; consequently, the site slopes gently by some 12m across the enclosure.

Bignor Hill is part of the Slindon Estate, an archaeologically rich area, now owned by the National Trust (Aldsworth 1976; Whitfield 1994). Until the Second World War the area mostly supported typical downland pasture (Ordnance Survey 1877; 1897), while the steeper slopes, including the southern third of the enclosure were covered by dense woodland. During the War and subsequently, the northern part of the enclosure was ploughed (Ede 1995), but as part of the National Trust's management programme, from the early 1980's onwards the ploughing has been limited to within c.5m of the enclosure and the woodland has been cleared. The whole monument is now preserved under pasture. The enclosure is protected as a Scheduled Ancient Monument (W SUSX 341) and is recorded in the National Monuments Record as SU 91 SE 31.

## 2. ARCHAEOLOGICAL HISTORY

### Barkhale Camp

Barkhale Camp was not portrayed on early Ordnance Survey maps (Ordnance Survey 1877; 1897), though its name suggests that the existence of the earthwork was recognised in the nineteenth century. It was first identified as a possible causewayed enclosure in 1929 by Professor JA Ryle, who excavated a trench diagonally across the ditch, but recovered no finds (Curwen 1937; Leach 1983). A modern trench encountered in the later excavation of trench K by Dr Seton-Williams may be the site of Ryle's trench; if so, the published section drawing suggests that the ditch was not fully excavated by Ryle (Leach 1983, 12 and Figure 3). In the following year an earthwork and auger survey was carried out by EC Curwen and GP Burstow, which confirmed that the enclosure demonstrated what Curwen termed 'the characteristic peculiarities of Neolithic fortification' (Curwen 1937, Figure 18). Curwen (1936) also refers to the discovery of a flint arrowhead within the enclosure.

The northern section of the enclosure suffered plough damage during and after the Second World War, prompting excavations from 1958 to 1961 by Dr V Seton-Williams, which were undertaken primarily as a training project for extra-mural students from London University. Seton-Williams' work remains unpublished, although the results were written up by Clipson (1976) as an unpublished MA thesis, and Leach's later excavation report (1983) contains a summary based on Clipson's account. Seton-Williams dug a total of twenty trenches through the earthwork and within the interior of the enclosure, mostly within the northern part, and one further trench into one of the barrows to the north of the enclosure (see below). As noted by Leach (1983, 11), all were so narrow as to make re-interpretation difficult. Since the excavations have been only partially published, the results from each trench are described in detail in Appendix i, with information derived from Leach's published report, Clipson's thesis and Seton-Williams' unpublished notebooks, plans and sections; see Figure 2 for the locations of the trenches.

The ditch segments excavated by Seton-Williams were generally found to be U-shaped in profile but with variable dimensions. Leach suggests that the presence of clay in many ditch fills is indicative of the bank material slumping or being deliberately pushed into the ditch. Where the bank was observed, it survived to a maximum of 0.6m high, and was up to 6.0m wide, although it had undoubtedly been spread by erosion and ploughing. Seton-Williams' excavations also failed to demonstrate whether or not the bank is genuinely discontinuous.

Trenches C, H, J and O were dug in the interior of the enclosure; in all cases the surface of the chalk was pitted with small holes and gullies, and it is suggested that most, if not all, may be natural. Similar features were observed at the bottom of trenches through the enclosure earthwork. All the trenches produced finds of worked flints and potsherds, in particular H and J.

The pottery was examined by Isobel Smith. Approximately two hundred sherds were recovered, mostly 'nondescript and undatable body fragments, often very small', and very

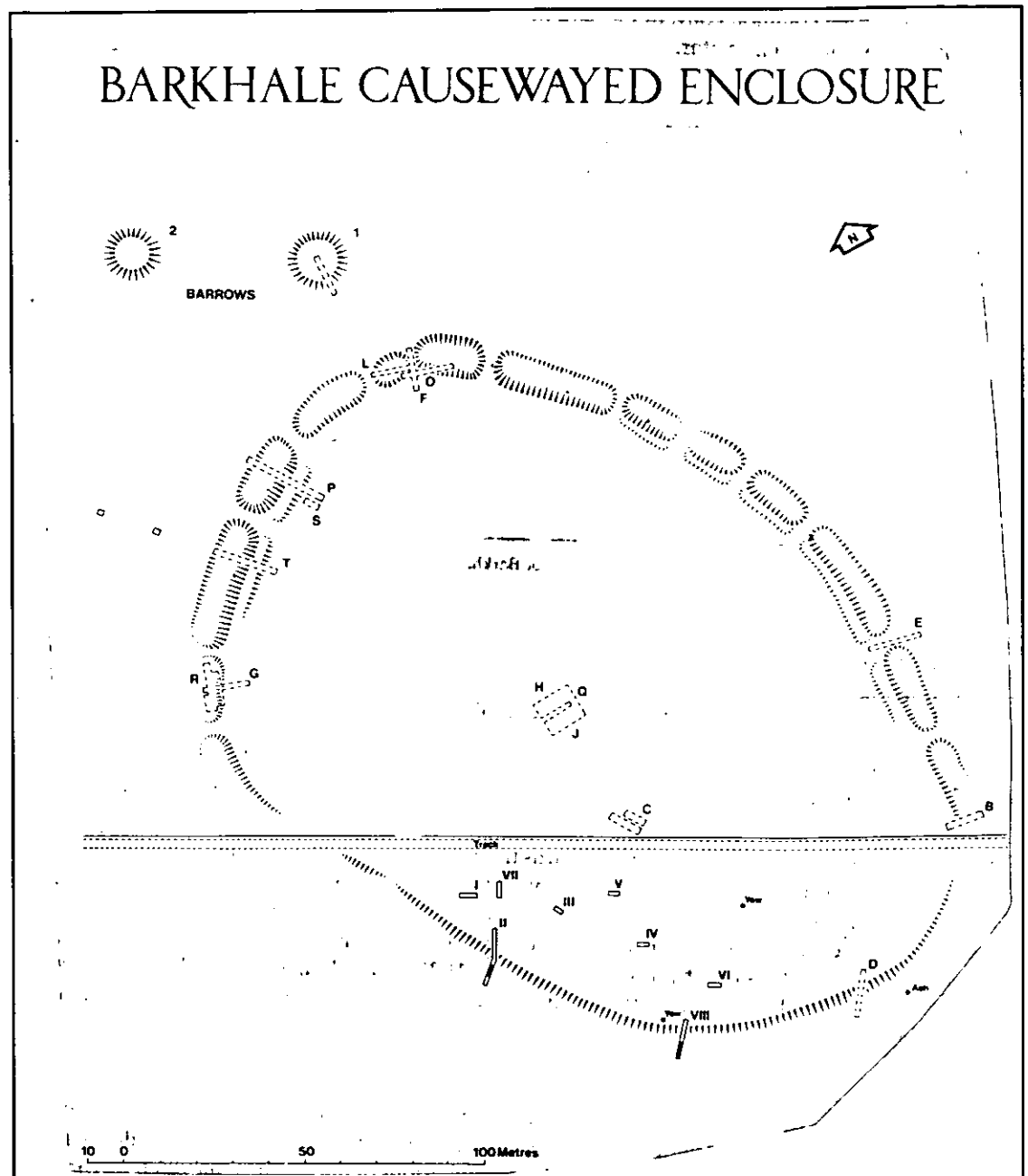


Figure 2:  
Earthwork plan by  
F.G. Aldsworth,  
after Leach 1983

few of them definitely Neolithic. Of the few diagnostic sherds, most are Bronze Age (possible collared urn and bucket urn sherds), Iron Age or Romano-British in date. However, Smith also indicates that some of the 'Iron Age' sherds may in fact be Neolithic. Furthermore, the stratigraphic position of excavated sherds is regarded as unreliable due to the formation of solution holes and subsequent downward movement of artefacts. In one instance in trench R, two joining sherds were separated by a vertical distance of 0.62m. 'Large quantities' of flint are referred to (Clipson in Leach 1983) but no total is given. Only fifteen show signs of retouch; Clipson identified five scrapers, a leaf-shaped arrowhead, a transverse arrowhead, a possible pick, a borer, a point and some blades. The waste flakes have not been studied.

Clipson argues that the flints represent an early Neolithic assemblage, but notes the difficulties in relating the artefacts to the earthwork, since most came from a disturbed ploughsoil context.

In 1978 the Sussex Archaeological Field Unit carried out further excavations, under the direction of Peter Leach, prior to the removal of the trees obscuring the southern part of the enclosure by the National Trust. The principle aim of the work was to establish the precise line of the bank and ditch. A total of eight small trenches were excavated, five through mounds in the interior, one through a hollow, and two (II and VIII) through the bank and ditch (see Figure 2).

The slight undulations in the interior were all interpreted as relatively recent disturbances, and one was found to contain a tree-bole. Trench II revealed that the ditch was *c.*2m wide and 1m deep and of U-shaped profile. Leach states that the bottom of the ditch and the face below the bank showed no weathering, suggesting therefore a rapid silting from the bank, whereas the outer face was weathered to some degree. Trench VIII again showed that the bank and ditch at this point were separated by a berm 2.5m wide, a feature which appears to be present on some of Seton-Williams' section drawings. The ditch is *c.*3m wide and 'more than' 1m deep.

The artefacts recovered present a similar picture to those from the earlier excavations. A total of 176 flints came from the trenches in the interior, mostly waste flakes 'scattered through soil layers', with cores, a scraper, and a core rejuvenation flake adding to the list of forms from the site. Trench II yielded 149 flints, 112 of them waste flakes. Trench VIII yielded 326 flints, 290 of them waste flakes. Cores and scrapers came from both trenches, including six cores from the lowest fill of the ditch in trench II. It was noted that a surface scatter of struck flint could be seen within the enclosure and also in the plantation to the south. Fourteen sherds of possible Neolithic date came from the upper fills of the ditch in trench II, while a single Iron Age sherd came from the surface and a Roman Samian sherd came from the top of trench III.

Molluscan samples were taken from the ditch fill in trench II in an attempt to establish the environmental conditions in which the enclosure was constructed. Few specimens were recovered, the species present generally being associated with shaded micro-habitats.

In the course of the RCHME survey, small numbers of struck flints were noted along the fringes of the ploughed field, including a possible notched blade, which was retained and will be presented to Lewes Museum.

### **The barrows**

The two bowl barrows immediately to the north of the enclosure were surveyed by the Ordnance Survey in 1896, and were depicted on the First Edition 25-inch map (Ordnance Survey 1897) and subsequent editions. Grinsell (1934) recorded that antiquarian investigations or looting had damaged both barrows, but this activity is not documented. Ordnance Survey field investigation in 1962 reported that both barrows were then under the plough and the hollows resulting from the earlier investigations had been filled in (NMR a).



(a) - SU 97521279 - Grinsell's Bignor no. 9.

(b) - SU 97561277 - Grinsell's Bignor no. 10. The mound was investigated by Seton-Williams in 1959, but the results were not published, nor does Leach (1983) deal with the barrow excavation. The trench was again quite narrow, and did not provide a complete section through the barrow. No ditch was observed in the trench, while an earlier trench through the centre of the mound can be seen in the section. As was the case with the enclosure, the few potsherds were generally of indeterminate date, though those from the lower levels of the mound were considered prehistoric. Sherds of a possible round-based vessel were recovered from the buried surface beneath the mound.

### 3. DESCRIPTION OF THE EARTHWORKS

For names and letters which appear in bold in the text, see RCHME earthwork plan surveyed at 1:1000 scale (Figure 3).

#### **Barkhale Camp**

Barkhale Camp lies just below the crest of the Downs on gently sloping ground which falls by *c.*3m from north to south. A single line of causewayed earthwork encloses a slightly angular oval area of 2.65ha, measuring 215m by 145m internally, with its long axis aligned north-north-west to south-south-east. The enclosure is bisected from north-west to south-east by a trackway of probable early nineteenth century origin, which corresponds to the dividing line between the relatively well-preserved northern part of the enclosure (about two thirds of the circuit) and the poorly preserved southern part, which was formerly wooded. The whole enclosure appears to have been subject to ploughing, although only the northern half is known to have been cultivated during and after the Second World War (Ede 1995).

The northern part of the enclosure appears, from the earthwork evidence, to be formed by fifteen or sixteen ditch segments and associated lengths of bank, with a slight berm between them. The ditch segments vary from 8.0m to 35.0m in length, from 5.0m to 9.0m in width and are 0.2m deep on average. In some cases, there is possible evidence for re-cutting of the parts of the individual segments. This superficial variability in form reflects that found in the excavated ditch sections, which were generally U-shaped in profile, but include shallow V-shaped stretches, varying from 2.7m to 4.8m wide and from 0.6m to 1.6m deep. Seton-Williams' trench E indicates that a smaller gully or slot continued between some of the main ditch segments. The associated bank sections measure up to 7.0m wide and 0.4m high. It is noticeable that in every case they appear to have been deliberately placed so as to retain their association with the adjacent ditch segment - all are discrete from each other and almost precisely commensurate with the ditch segments. The causeways range from 2.5m to 7.5m wide and at least six appear wide enough to be potential entrances. Seton-Williams' sample excavations in the interior recovered small numbers of worked flints but no evidence for structures or occupation as such.

A minimal scarp running along the inner edge of the causewayed bank around most of the northern part of the enclosure probably represents the limit of an episode of ploughing, probably of post-war date. Many of the very slight irregularities in the causewayed earthwork recorded by RCHME result from earlier excavation trenches. The disturbance at *c* and immediately to the north of the track on the eastern side of the enclosure relates to a second track across the site, which was in existence around the end of the nineteenth century (Ordnance Survey 1877; 1897). A slight inturn of the bank segment at *c*, visible on aerial photographs, is therefore unlikely to be an original feature.

The southern part of the enclosure has been portrayed on previous earthwork plans as a single scarp. The RCHME survey has recorded minor irregularities in the precise form of

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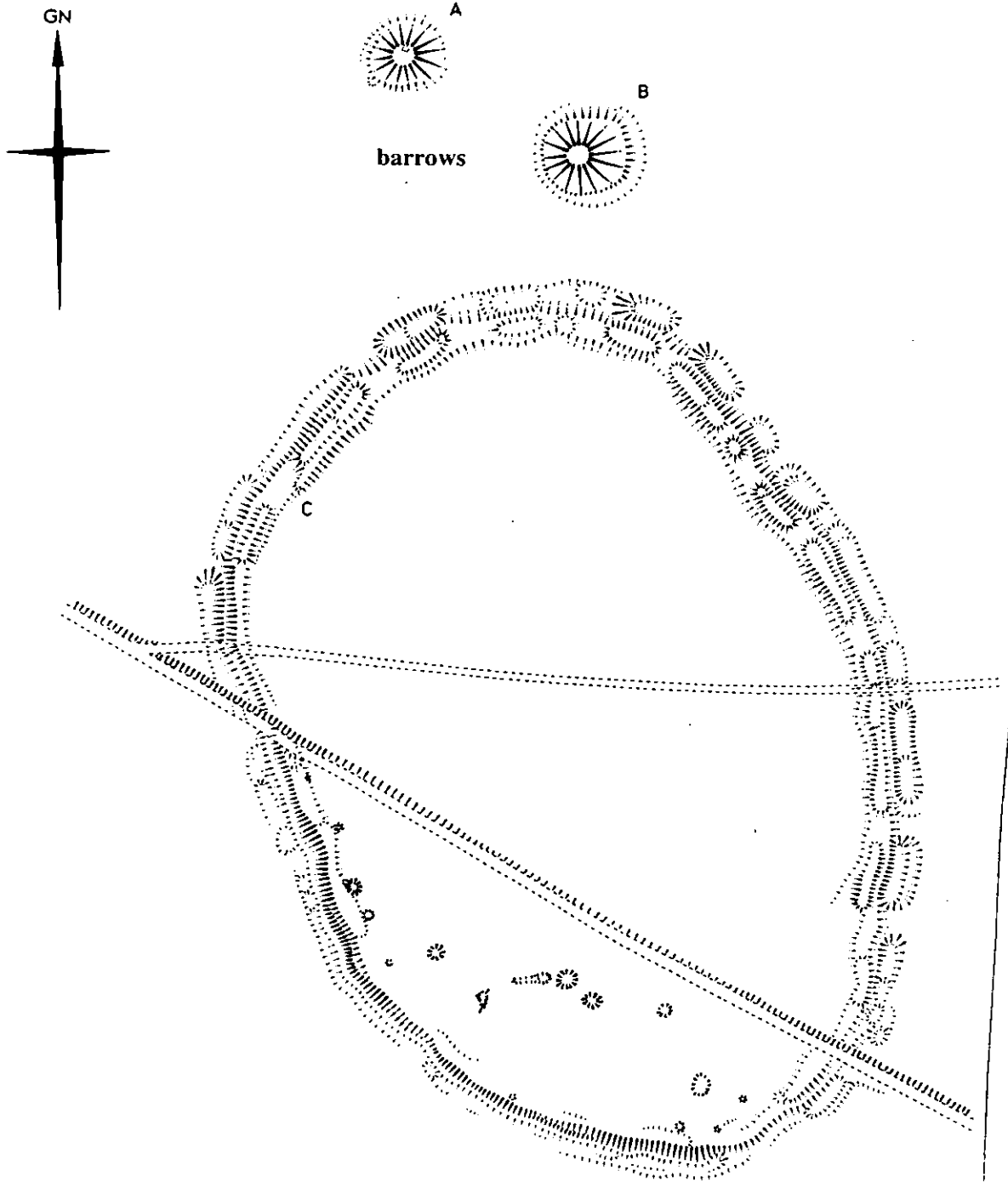


Figure 3:  
RCHME  
earthwork  
plan,  
surveyed  
at 1:1000  
scale)



10 0 100 METRES

this scarp and the fragmentary survival of short sections of the bank. The scarp is 1.1m high and superficially similar in form to a positive lynchets accumulated through ploughing. Indeed, Clipson supposed that 'gullies' noted by Seton-Williams in her trench A might result from ploughing (Leach 1983, 15) and the section excavated by Leach's trench II indicates a distinct 'step' on the uphill side of the bank, which is consistent with the edge of a plough cut. However, the positive build-up of ploughsoil which might be expected on the downhill side of the bank is not pronounced - ie ploughing does not seem to have been wholly responsible for the scarp. It would therefore seem that to some extent the natural slope was emphasised by artificial scarping along the inner side of the ditch. Although only two or three possible ditch segments are evident on the surface as minimal depressions, slight irregularities in the scarp, together with the three excavated sections, show that the ditch was present, and almost certainly segmented as to the north.

A number of steep-sided pits in the southern part of the enclosure are clearly of modern date; RCHME did not survey several other minor disturbances in the interior, which were investigated by Leach and found to be tree-holes, or otherwise archaeologically insignificant features (Leach 1983, 23).

#### The barrows

Two bowl barrows, some 30m apart, lie to the north of Barkhale Camp, the closer of the two only 20m from the edge of the enclosure ditch. The western barrow (a) has a basal diameter of 20.0m and stands 1.3m high. The eastern barrow (b) measures 23.0m in diameter and stands 1.5m high; it is probable that the minimal depression around its base represents the effects of modern ploughing, since no evidence for an encircling ditch was encountered by Seton-Williams excavation. The edges of both barrows have been truncated by ploughing over past decades, and steep negative lynchets continue to form around their perimeters. Ordnance Survey observations recorded that depressions resulting from antiquarian excavations or looting were evident on the tops of the barrows, but that these were subsequently filled in. RCHME identified a very slight surviving trace of a possible antiquarian trench on top of barrow a.

#### Miscellaneous earthworks (see Figure 4)

At least twelve other round barrows lie in the general vicinity of the enclosure, sited mostly along the crest of the Downs in highly visible locations. Although these are assumed to be of Bronze Age date, some - particularly those adjacent to Stane Street - may be of late Roman date. The only possible Neolithic long barrow which has been identified lies some 1.2kms south of the Barkhale Camp, near the end of Great Down spur.

Approximately 1.8kms to the west of Barkhale Camp, a number of linear earthworks or cross-ridge dykes appear to delimit an extensive area around Sutton Down, by cutting off the level approaches and spurs. The only one which has been excavated has been dated to the Bronze Age (Curwen 1918), but it is not certain that they were all contemporary.



One of the most prominent earthworks in the area is the *agger* of Stane Street Roman road. This leads directly from Chichester to London, but deviates slightly to cross the Downs escarpment; its proximity to Barkhale Camp is entirely fortuitous.

#### 4. INTERPRETATION AND DISCUSSION

Leach concludes that notwithstanding the paucity of artefactual evidence and the absence of scientific dating obtained from Barkhale Camp, the morphological similarities between it and other better-dated sites suggests that the enclosure was constructed in the earlier Neolithic period c.4000-3300 BC. As EC Curwen first observed in 1937, it clearly exhibits many of the 'characteristic peculiarities of Neolithic fortification'. The apparent awkwardness of its siting in relation to the natural topography has long been regarded as typical of the Sussex causewayed enclosures and Smith (1971, 92) comments that the whole class of monument has 'the appearance of predetermined plans carried out regardless of topography'. Certainly, neither the location of Barkhale Camp nor its plan demonstrate the apparently 'logical' concern of, for example, later prehistoric hillforts to follow and emphasise the natural contours. The Neolithic enclosures at Bury Hill (TQ 002 120), Offham Hill (TQ 399 113) and Whitehawk Camp near Brighton (TQ 330 048), which also lie on natural slopes, are all similar in this respect (see Drewett 1994, Figure 14).

Conspicuous locations are common to most of the upland enclosures (Drewett, Rudling and Gardiner 1988, 35; Drewett 1994), but the slight spur which Barkhale Camp occupies is unusual because the higher ground between Sutton Down and Bignor Hill effectively restricts visibility over further than c.1km across a wide arc to the north. Drewett (1994) has argued that such sites are intended to be seen from a specific direction, the closest parallel being Combe Hill causewayed enclosure (TQ 574 021), which occupies a saddle with eminences obscuring visibility to both east and west, but is framed on the horizon when seen from the Sussex plain to the north. However, unlike Combe Hill, the southern aspect of Barkhale Camp (now wooded) could not ever have been particularly striking from the lower ground on that side due to the shoulder in the hillside (see Drewett 1994, Figure 14). In addition, the unknown extent to which the environs of the site remained forested may have restricted the fields of vision much more than today (Drewett, Rudling and Gardiner 1988, 36). Therefore, it may be that the enclosure was sited so that its interior was visible from the high ground relatively close by.

The oval plan of Barkhale Camp is typical of the majority of causewayed enclosures; the slight angularities evident in its outline also led Pitts (1979) to compare it to the almost continuously ditched enclosure on Halnaker Hill (SU 921 097), whose Neolithic date remains unproven. At 2.65ha, the area of the enclosure is considerably larger than many of the other Sussex sites, such as the inner earthworks at Combe Hill (0.50ha), Whitehawk Camp (0.77ha), and The Trundle (0.95ha), though in the last two cases outer circuits were added, making them larger overall. The significance of the variability in the form of causewayed enclosures, in terms of size, shape and complexity has yet to be adequately explained.

The molluscan evidence was justifiably described by Leach as 'inadequate', but does not appear to contradict the pattern established on the other formally less complex sites in Sussex (Thomas KD 1982). Only Whitehawk Camp and The Trundle are thought to have

been constructed in extensive clearings, while the others lay in relatively small and recent clearings (Drewett, Rudling and Gardiner 1988, 24), consistent with the shaded micro-climate suggested by the species at Barkhale Camp.

The function of causewayed enclosures remains a subject of debate, and each site may have encompassed a number of different communal activities, which perhaps also changed over time (Thomas J 1991). The total finds assemblage recovered from Barkhale has not all been studied in detail, but is unlikely to be very informative about the nature of the activities carried on at the site. The sample of worked flint is small and not dominated by any single type of tool, nor does it seem that the production of tools for use elsewhere was being carried out. It is perhaps significant that Leach recovered struck flints from the woodland to the south, suggesting that activity was not necessarily completely contained within the enclosure. There is little pottery which is certainly of Neolithic date, and none of the sherds is diagnostic of any particular type of vessel. Early interpretations of causewayed enclosures favoured settlement and defence, although Curwen (1937, 84-5) was dubious about the defensive capability of such earthworks. In the case of Barkhale Camp, the finds assemblage would suggest that there was no permanent occupation in the enclosure. Since it lies within a kilometer of two more naturally defensible hilltops, it also seems clear that defence was not a factor in the choice of location. Piggott (1954) saw the monuments in terms of the seasonal management and exploitation of cattle. More recent interpretations have largely rejected these theories and discussed the enclosures as possible centres of communal ritual connected with death (Smith 1971; Drewett, Rudling and Gardiner 1988, 41-3). However, it should be noted that Barkhale Camp, unlike enclosures such as Whitehawk Camp and Combe Hill, does not appear to relate directly to concentrations of long barrows (Curwen

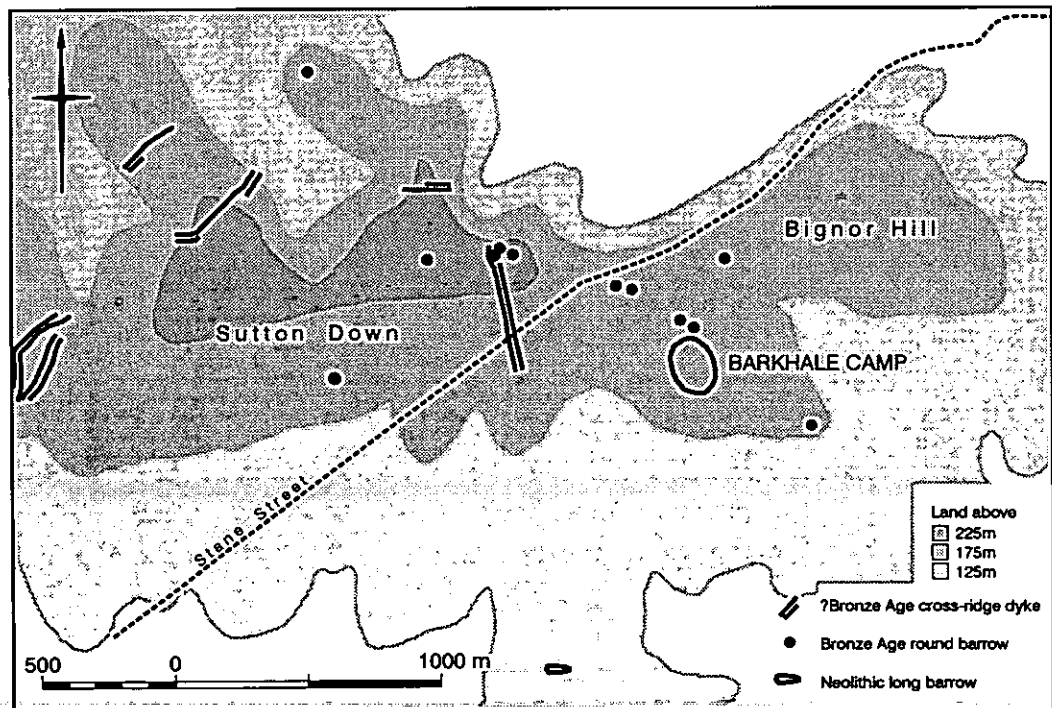


Figure 4:  
The environs of  
Barkhale Camp

1937, 97-8), with only a single possible example lying 1.2kms to the south (see Figure 4). Furthermore, as yet excavation has recovered little evidence for placed deposits of either artefacts, as at Combe Hill for example, or human remains, as at Whitehawk Camp. However, it has also been suggested that the nature of the ritual may be vested in the very acts of creating and re-creating the enclosure (Smith 1971; Evans 1988).

It is possible that Barkhale Camp formed part of a much larger 'ritual landscape', similar to that surrounding the causewayed enclosure on Hambledon Hill in Dorset (ST 849 122), where spurs radiating from the hill on which the enclosure was located were defined by cross-ridge dykes of Neolithic date. A similar pattern is also evident to a lesser degree at The Trundle, West Sussex (SU 877 110), though it seems probable that the linear earthworks there were constructed in the Bronze Age, and represent continuity in the use or perception of the site. These examples may help to explain the concentration of linear earthworks around Sutton Down, 1.8kms to the west of Barkhale Camp. Although one of the linear ditches has been dated securely to the Bronze Age (Curwen 1918), it is possible that some of the others are contemporary with the causewayed enclosure. If all are of Bronze Age date, it would seem that there was some discontinuity in the use of the landscape, and that activity focused more around Sutton Down.

Although the focus of Bronze Age activity may have shifted away from the Neolithic enclosure, possible continuity in ritual use or continued association of the site with the dead is suggested by the proximity of the two Bronze Age barrows, a phenomenon paralleled closely at Combe Hill and Bury Hill in Sussex and Windmill Hill and Whitesheet Hill in Wiltshire. Antiquarian writers also noted the presence of barrows in the vicinity of Whitehawk Camp, East Sussex. In addition, some of the pottery recovered from the interior of the enclosure was interpreted by Smith as being possible 'bucket urns' and 'collared urns', both of which types may have come from Bronze Age funerary contexts. Although the barrows appear to have been sited in direct relationship to the causewayed enclosure, it is possible that they also formed part of a dispersed linear cemetery extending for 1.5kms along the crest of the Downs from north-west to south-east (see Figure 4). The significance of the small numbers of later prehistoric and Roman sherds is uncertain.



## 5. SURVEY AND RESEARCH METHODS

The archaeological survey was carried out by Alastair Oswald and Carolyn Dyer. Control points and hard detail were surveyed using a Wild TC1610 Electronic Theodolite with integral EDM. Data was captured on a Wild GRM 10 Rec Module and plotted via computer on a Calcomp 3024 plotter. The details of the earthwork plan were supplied at 1:1000 scale with Fibron tapes using normal graphical methods. The air photographic analysis was carried out by Carolyn Dyer.

The historical and archaeological background was researched and written by Martyn Barber of RCHME's National Monuments Record, and the remainder of the report was written by Alastair Oswald (Cambridge Field Office) and Carolyn Dyer (Aerial Photographic Unit), and edited by Peter Topping. The earthwork plan was drawn up by Alastair Oswald. The site archive has been deposited in the National Monuments Record, Kemble Drive, Swindon SN2 2GZ (SU 91 SE 31).

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## 6. BIBLIOGRAPHY

- Aldsworth FG 1976 'Some Recent Discoveries on the Slindon Estate' *Sussex Archaeological Collections* 114, 327-8
- Clipson J 1976 'The Excavation of a Neolithic causewayed Enclosure on Barkhale Down, Bignor Hill, West Sussex 1958-61' unpublished MA thesis, University of London, Institute of Archaeology
- Curwen EC 1918 'Covered Ways on the Sussex Downs' *Sussex Archaeological Collections* 59, 35-76
- 1936 'On Sussex Flint Arrow-heads' *Sussex Archaeological Collections* 77, 15-25
- 1937 *The Archaeology of Sussex* (first edition) London, Methuen
- Drewett PL 1995 'Dr V. Seton-Williams excavations at Combe Hill, 1962, and the role of Neolithic causewayed enclosures in Sussex' *Sussex Archaeological Collections* 132, 7-24
- Drewett PL, Rudling D & Gardiner M 1988 *The South-East to AD 1000* London, Longman
- Ede J 1995 'Land Use History and Landscape Development of the Slindon Estate, West Sussex' desk-top report by the National Trust
- Evans C 1988 'Acts of Enclosure: A Consideration of Concentrically-Organised Causewayed Enclosures' in Barrett JC and Kinnes IA eds. *The Archaeology of Context in the Neolithic and Bronze Age* Sheffield, University of Sheffield
- Grinsell LV 1934 'Sussex Barrows' *Sussex Archaeological Collections* 75, 217-75
- Leach PE 1983 'The Excavation of a Neolithic Causewayed Enclosure on Barkhale Down, Bignor Hill, West Sussex' *Sussex Archaeological Collections* 121, 11-30
- NMR OS Field Investigation reported on record card SU 91 SE 31
- Ordnance Survey
- 1877 Ordnance Survey 25-inch map sheet West Sussex XLIX.7 & 8, surveyed 1876
- 1897 Ordnance Survey 25-inch map sheet West Sussex XLIX.7 & 8, surveyed 1896
- Piggott S 1954 *Neolithic Cultures of the British Isles* Cambridge University Press
- Seton-Williams 1958-61 unpublished plans, sections and notes from Barkhale excavations on RCHME microfiche



Smith IF 1971 'Causewayed Enclosures' in DDA Simpson (ed) *Economy and Settlement in Neolithic and Early Bronze Age Britain and Europe* 89-111, Leicester, Leicester University Press

Thomas J 1991 *Rethinking the Neolithic* Cambridge, Cambridge University Press

Thomas KD 1982 'Neolithic Enclosures and Woodland Habitats on the South Downs in Sussex, England' in Bell M & Limbrey S *Woodland Ecology* British Archaeological Reports (International Series) 146, 153-55

Whitfield C 1994 'Archaeological Survey: Slindon Estate' desk-top report by National Trust, Sussex Downs Conservation Board

## 7. APPENDIX i: SETON-WILLIAMS' EXCAVATIONS

See Figure 2 for locations of trenches

(i) trenches through the northern part of the earthwork

Trench B - the ditch here is a maximum of 2.74m wide and 0.62m deep, with a shallow U-shaped profile. Numerous circular holes, interpreted as solution holes, were observed in the base of the ditch. The section suggests that the bank has been almost flattened by ploughing.

Trench E - was dug to examine one of the causeways suggested by Burstow and Curwen's survey. The section is difficult to interpret but appears to indicate that the bank may be continuous here, as indicated on Seton-Williams's unpublished earthwork survey (both Burstow & Curwen and Aldsworth's later survey have a causeway in the bank at this point). Alternatively the rise in ground level may be to the protection offered by bank on either side of the causeway. It is just possible that the end of the ditch just falls within the trench, but the unevenness of the chalk at this point makes interpretation difficult.

Trench F - dug across a causeway; like trench E it shows a slight rise in ground level towards the enclosure interior. The causeway is shown most clearly in trench O, dug at right angles to F and running between adjacent lengths of ditch. The causeway is c.6.1m wide and the ditch to the west is c.1.62m deep.

Trench L - runs the full length of a ditch segment, from causeway to causeway. The ditch segment here is 11.27m long and a maximum of 1.52m deep, and relatively flat along the bottom. Two almost continuous layers of flints are shown within the fill running the full length of the ditch, and continuing along the causeway to the west as well. Leach argues that this apparent regularity is not evident from photographs, and suggests 'a natural origin may be more likely' although he does not elaborate. Also according to Leach, 'numerous pottery and flint finds in this area may suggest a habitation site in the vicinity.'

Trench K - the ditch here is 4.87m wide and 1.52m deep, while the bank rises to c.0.6m above the chalk. On the basis of the preserved rise in the chalk caused by the presence of the bank, Leach estimates an original width for the bank of c 4.60m. A shallow trench running across the length of the ditch is suggested to be that dug by Ryle in 1929. The fill of the ditch contained 4 features interpreted as hearths, set one above the other (only 2 are shown in the section). Seton-Williams described these features as 'circles of packed flints cracked by fire set in dark burnt earth and covered with scattered charcoal.' Trench K was extended to the south for a few metres by trench P, although little of note was revealed.

Trench S was dug immediately adjacent and parallel to the southern end of trench K, on its western side (although Leach's plan has it parallel to trench P). The profile shows the interior of the enclosure rising towards the bank, but is otherwise, again, difficult to interpret. The most notable feature is a band of 'packed flint lumps' forming a continuous layer between 3 and 8 inches (0.08m - 0.20m) thick running the entire length of the section.

Trench T - Leach suggests that the excavator continued digging into the natural shattered chalk at the bottom of the ditch, and suggests its maximum dimensions are c.4m wide and 1.20m deep. Two smaller trenches, or test pits, were dug beyond and in line with trench T to the north west in order to 'establish conditions outside the ditch'. A few waste flakes were noted in the topsoil, below which was natural chalk.

Trench G - the ditch here is 3.96m wide and 0.91m deep, with a shallow U-shaped profile. No trace of a bank was noted, although the natural chalk is slightly higher to the south of the ditch. A black silt layer at the bottom of the ditch is interpreted as suggesting a rapid initial fill of the ditch. A large number of struck flakes was apparently found in this trench, in particular within the ditch fill. The area excavated was extended as trench R in order to expose completely the whole of the ditch segment, which proved to be 10.05m long, 3.65m wide and up to 0.91m deep 'with a fill of homogenous brown loam' but with no clay.

(ii) trenches through the southern part of the earthwork

Trench A - absent from Leach's published plan, this was situated just south of the fence and track on the western side of the enclosure, in order to try and examine the bank and ditch in this area. Leach states that they were not found. However, what appears to be the remains of a bank can be seen in Seton-Williams' section drawings. Furthermore, the unpublished plan of the site showing the location of trenches suggests that trench A did not extend far enough to encounter the ditch, if there is one at this point. Worked flints, including waste flakes, were apparently found here, as was a possible hearth, but no further records relating to these exist.

Trench D - The earthwork was apparently badly disturbed by tree roots. Leach notes that 'a slight rise and dip was seen, possibly being the bank and ditch'. The section drawing suggests Leach is being a little cautious here.

Trenches M and N - a pair of very small trenches, or test-pits, dug into the probable course of the ditch c 15-20m west of trench D. These trenches are not described by Leach, and are omitted from his site plan, and Seton-Williams' sections by themselves are not particularly illuminating, although they seem to show the presence of a shallow ditch, with the ground rising (apparently towards the bank) to the north.