

RECENT RESEARCH AT PEAK DISTRICT STONE CIRCLES, INCLUDING RESTORATION WORK AT BARBROOK II AND HORDRON EDGE, AND NEW FIELDWORK ELSEWHERE

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INTRODUCTION

This paper has two purposes, to report restoration work undertaken after vandalism at the Hordron Edge and Barbrook II stone circles, and to produce an update to the recently published corpus of stone circles and ringcairns in the Peak District (Barnatt 1990).

The work at Barbrook II in 1989 was extensive, the end result being a fully restored monument. Environmental sampling and radiocarbon dating were also undertaken. The restoration at Hordron Edge was confined to one orthostat. A new survey was also executed to document several newly identified elements to the site.

It is perhaps inevitable that as soon as a corpus of sites is published there is need for revision. The 1990 publication comprised a text mostly written in the mid 1980s, some descriptions based on surveys undertaken as early as the mid 1970s. Subsequent field observations up to the late 1980s were included in the 1990 text. However, several sites have undergone changes since this date. Findings at these have prompted visits to check out most other monuments, some not visited or re-assessed for several years; the results are presented here (Fig. 1). Most new observations are the result of thick vegetation being removed (eight cases), but new features have also been observed at Hordron Edge, Barbrook III, Birchen North and Park Gate. New data have also become available for two lost sites. Four new ringcairns have been found during detailed multiperiod landscape survey projects. A fifth site, that at Fallinge Edge which was rejected in 1990, has now been suggested as a possible ringcairn.

EXCAVATION AND CONSERVATION— BARBROOK II STONE CIRCLE (SK 27757581)

Introduction

In Autumn 1989 restoration work was undertaken at the Barbrook II stone circle. This became necessary when the site was vandalised at midsummer 1988 and again a year later. The site (Barnatt 1990, 55-7) lies within an large cairnfield where a number of surveys and excavations have taken place previously (Mitchell 1850; Riley 1963; 1981; Henderson 1963; 1979; Barnatt 1986, 47-9). The circle itself was excavated extensively in the 1960s by Lewis (unpublished) and was later rebuilt.

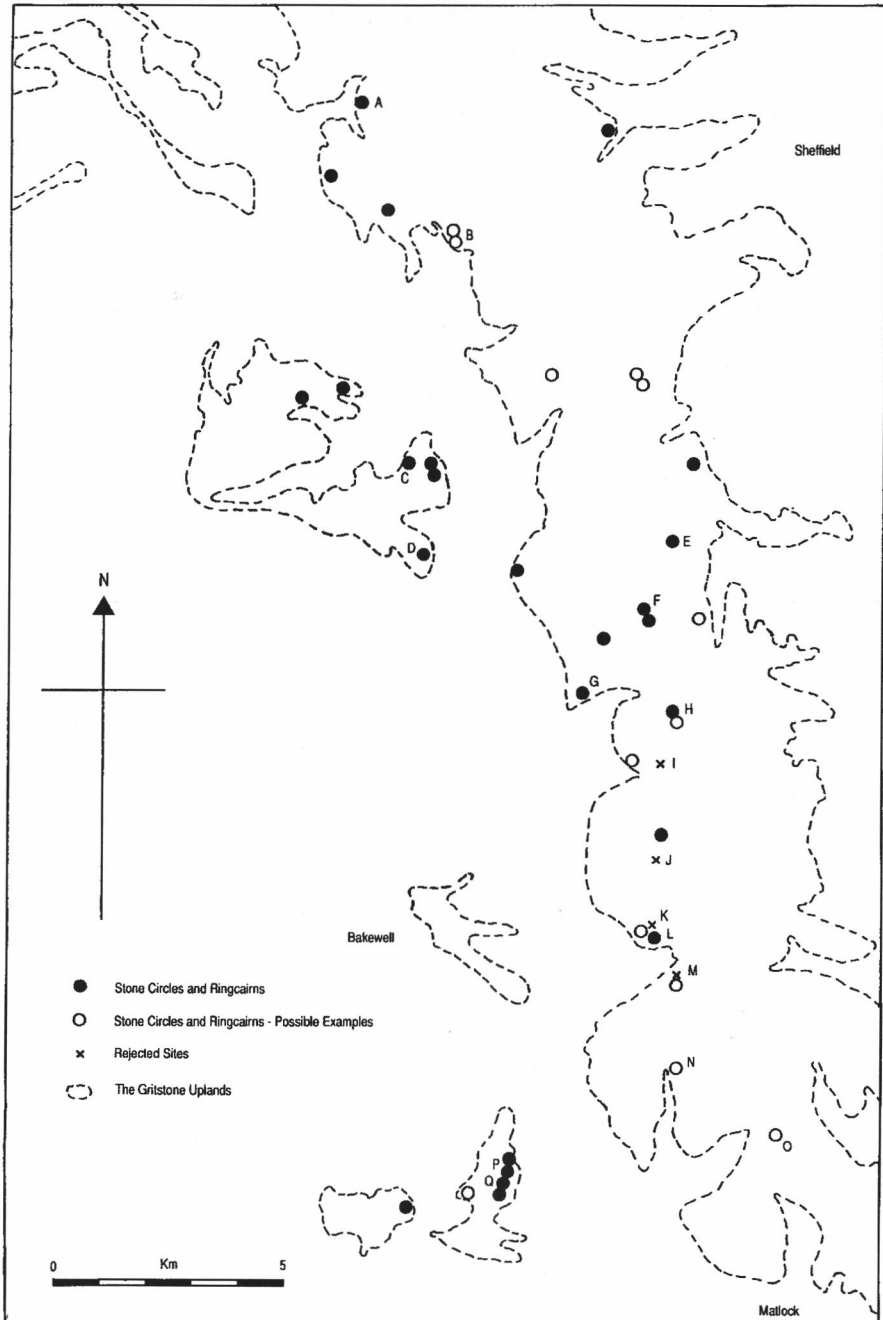


Fig. 1: Peak District stone circles: location of stone circles and ringcairns
 (A: Hordron Edge; B: North Lees; C: Wet Withens; D: Top of Riley; E: Barbrook III; F: Barbrook II; G: Eaglestone Flat; H: Birchen Edge North; I: Birchen Edge South; J: Gibbet Moor South; K: Beeley Warren North-East; L: Park Gate; M: Beeley Moor North; N: Fallinge Edge; O: Seven Brethren; P: Nine Ladies; Q: Stanton Moor).

The 1989 restoration was undertaken by the Peak Park Joint Planning Board, in consultation with English Heritage, and was directed by the author (Barnatt 1989c). Work included small excavations to relocate the exact original positions for orthostats; removal of a small area of intact monument to obtain environmental and dating evidence; and the rebuilding of all recently damaged areas of the site. The context numbers used for features in 1989 are used throughout this report, irrespective of which excavation is under discussion. The site archive is deposited in Sheffield City Museum.

Past activity at the circle (Fig. 2)

The earliest documentation of this circle is in an unpublished letter from Samuel Mitchell to Thomas Bateman. Mitchell noted that in 1850 two small mounds within the circle were dug, as well as eight others elsewhere within the cairnfield, but that his labourers made no finds. No detailed description of the site was given.

From 1962 to 1970 extensive excavations at the site were carried out by G. D. Lewis, initially started in response to threatened afforestation. The following brief account is mostly derived from descriptions already publicly accessible (Lewis 1966, 1970). However, in order to facilitate the 1989 restoration, Lewis kindly permitted the consultation of his overall excavation plan and the slide collection in Sheffield City Museum. As he still intends to publish his excavations, only unpublished details necessary to understand the 1989 restoration are given here. The 1960s work included total excavation of the interior, and of a cairn that blocked the single entrance. Investigations also included work on the main bank and a small area beyond this. These diggings showed that the site was an embanked stone circle, having orthostats set within the inner edge of a rubble bank, with an internal diameter of 14.5x13.5m and width of 1.3-2.3m. The bank was retained at its inner edge by a part-tumbled drystone wall, originally three to four courses high, and outside by a kerb of blocks and slabs. The nine or ten orthostats were unusual in that they were irregularly spaced, with the uprights set close together to the east, including two set contiguously, while there was a particularly wide gap between orthostats to the south/south-west where the kerb ran unbroken. When excavated, four stones were virtually fallen, while the others were leaning inwards to various degrees. The bank was interrupted to the north-east by an entrance. This had subsequently been largely blocked by a cairn placed over a stone-filled pit. Cupmarked stones were found in the bank and elsewhere on site. In the interior of the site were several features. In the south-west quadrant was a low cairn with a kerb of contiguous slabs, of c. 2.5m diameter, which was removed during excavation and later rebuilt. To the south-east of the cairn was a ruined cist which had been disturbed previously. The capstone lay nearby and was cupmarked on one face.

Excavations under the direction of Lewis ceased after the 1970 season, because he moved from Sheffield City Museum to Liverpool Museum. At this point the majority of the bank fill had not been examined (Lewis *pers. comm.*). However, photographs taken in 1974, and the excavations in 1989, show that this rubble and parts of the kerbs were removed subsequently, and that this took place in all four quadrants. The 1974 photographs clearly show established turf at ground level between the kerbs, which indicates that this damage took place soon after Lewis ceased his operations. The bank rubble was placed in a series of heaps within the site adjacent to the bank. This *modus operandi* suggests an excavation by persons unknown, who took over where Lewis left off. Thus, by 1974, the only extant parts of the monument were parts of the kerbs, some of the orthostats (see below), and small portions of bank under three baulks left by Lewis. By 1974 the internal cairn was about twice as high as that originally excavated and the cist had been rebuilt.

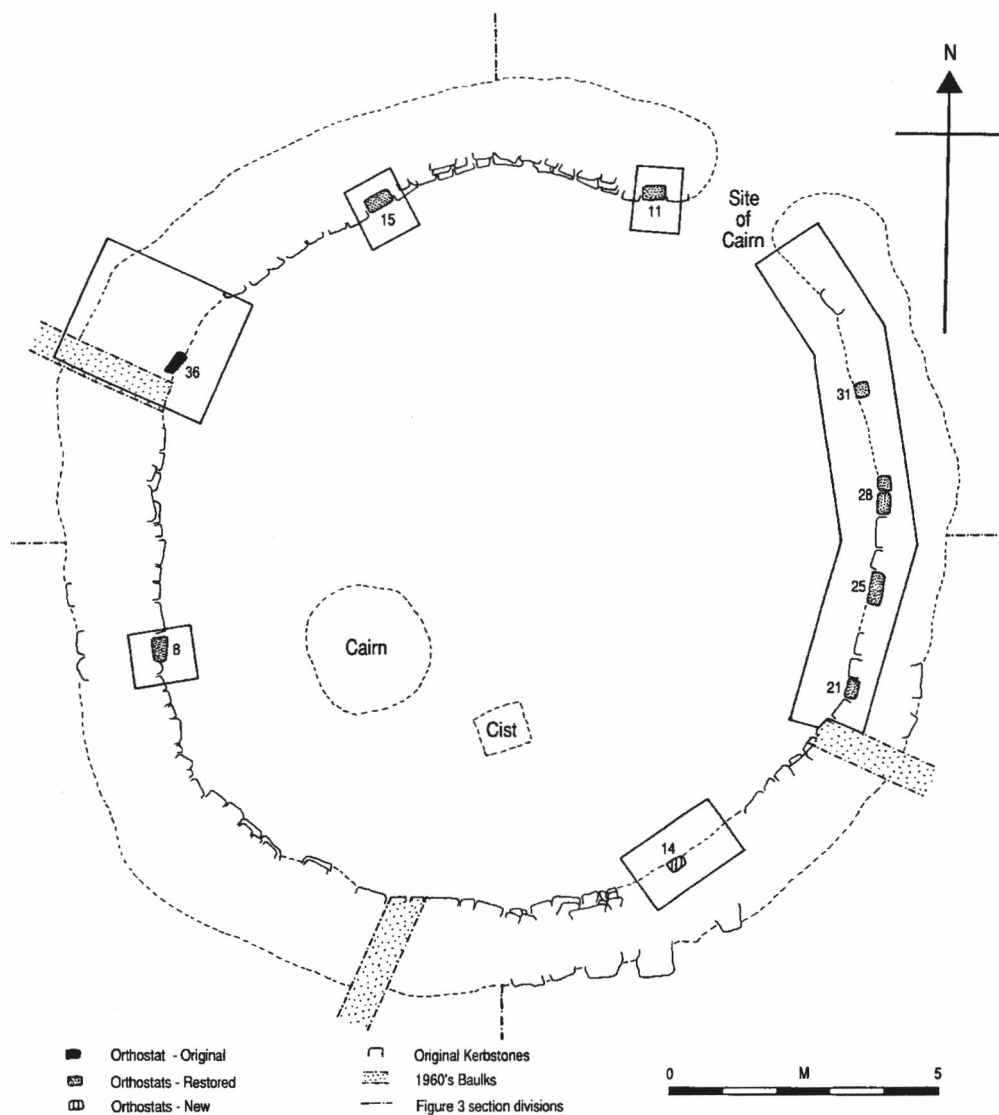


Fig. 2: Peak District stone circles: plan of the Barbrook II stone circle, showing the 1989 excavations.

In 1974 the site was rebuilt under the auspices of John Marjoram of Sheffield City Museum. This included the replacement of bank rubble, rebuilding of the inner kerb where missing or reduced to its approximate original height, and rebuilding parts of the outer kerb. The internal cist was rebuilt and the capstone placed on top. The excavation was backfilled, but with only a thin layer of soil in the site interior in order that the structural features here remained visible. By 1974 the majority of the orthostats had fallen, and some may have been displaced. Examining the site in 1989 gave the distinct impression that the 1974 work was carried out without reference to the 1960s archive plans. Five of the orthostats (14, 21, 28, 31) were not recognised in the

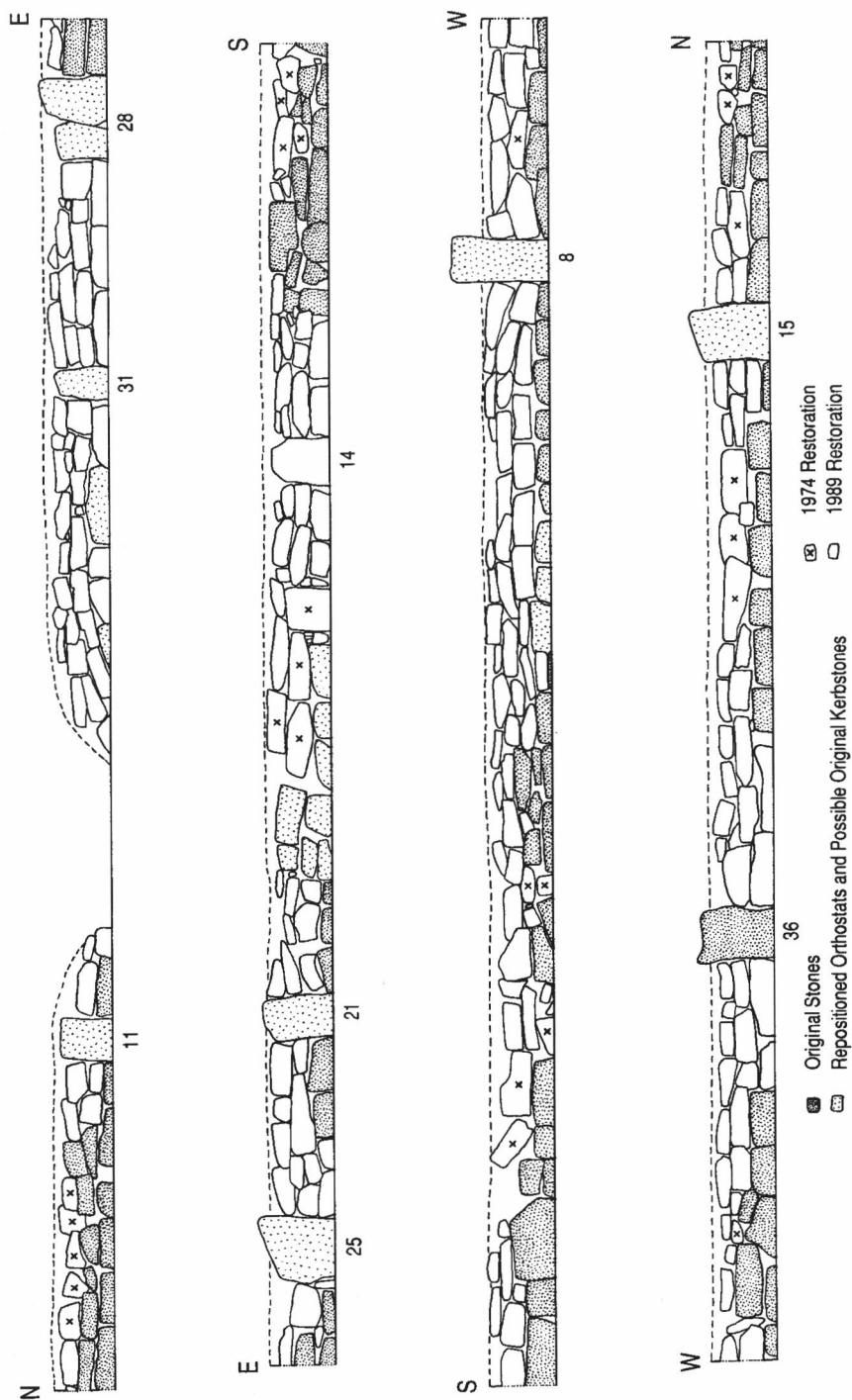


Fig. 3: Peak District stone circles: elevations of the orthostats and abutting drystone wall at Barbrook II, illustrating the extent of surviving original and restored stonework.

rebuilding and were used as bank rubble or kerbstones (relocated 1989). Of the other five stones, only one was still upright (36) and the other four (8, 11, 15, 25) were left recumbent. Their original recesses in the kerb were not respected and the 'restored' kerb ran continuously here, built over the bases of the fallen orthostats. The recesses at the sites of the five missing stones were lost in the same way. The entrance was restored, but not the cairn that once blocked it; the 1960s baulk which ran through the entrance was removed. While the north-western entrance terminal is in the correct position, that to the south-east, which was buried or robbed by the later cairn, is less certainly so.

At midsummer 1988, and again on the following solstice, the site was seriously damaged by misguided 'improvements' by persons unknown. Three of the remaining five orthostats were re-erected (8, 15, 25), in each case being propped upright on the surface and held in place by large chock stones taken from the bank. In addition, five new orthostats were created, held in place in similar fashion or propped against the kerb, one next to stone 11, one between stones 15 and 36, and three to the south/south-east. Four of these were large slabs robbed from the internal kerb, while the fifth was the larger part of the broken capstone which had been moved from adjacent to the cist. Other damage included the heightening of the bank in the south-west quadrant by up to 0.5m to create a windbreak. This was achieved by removing much of the internal kerb here and placing it above, and also by robbing the upper courses of the internal kerb to the south-east and by more minor robbing elsewhere. A few stones were added to the internal cairn and the cist was converted to a fireplace by adding further stones. Several of the cist slabs sustained minor heat damage.

The 1989 excavations and restoration (Figs 2, 3)

From 16 Oct. to 10 Nov. 1989 the site was partially re-excavated and fully restored. Planning of deterioration over the last twenty years and the positions of the 1989 trenches was superimposed on the 1960s excavation plan, rather than a new plan, to facilitate cross referencing of features and damage. Excavation comprised seven small trenches along the inner edge of the bank, placed around orthostats or their sites, to obtain data on their exact original positions in advance of restoration. An eighth somewhat larger trench to the north-west, cut the full width of the bank at the point where environmental and dating samples were to be taken. Three of the small trenches in the north-east quadrant were extended to run together when it was realised that missing orthostats were buried here.

Prior to commencement of the 1989 excavation, it was not clear if all four quadrants had suffered post-1970 from removal of the bank material. However, all quadrants were sampled by excavation and such disturbance was clearly recognisable in every case. There was no soil in the interstices and the replaced stones sat directly upon subsoil or pale prehistoric soils. The lowest parts of the interstices contained a dark peaty soil which had fallen through the bank from that scattered above at the end of the 1974 operations. In contrast, at that part of the bank in the baulk left unexcavated in the 1960s, there was soil in all the interstices, and the bank stones rested within, and on, a dark soil, while below the bank was a pale soil below an iron pan. Unfortunately both kerbs were disturbed at this point and so the possibility that they were set in bedding trenches could not be assessed here.

In all other parts of the internal area re-examined, the stratigraphy had been truncated, so that backfill placed here in 1974 rested directly on the subsoil, which itself had been cut into in parts in the 1960s. The replaced bank material also rested on the pale, yellow-brown sand of the subsoil, or on a prehistoric B horizon comprising a pale, yellow-brown, loamy sand found in the east and south-west. In all areas investigated of the inner kerb, whether seemingly original or

certainly rebuilt in 1974, the stones rested on the subsoil or the B horizon noted above. This lack of distinction allows two possibilities to be postulated. Firstly, that the kerb, in parts at least, was set in a shallow trench, the evidence for which had been cut away within the interior by the 1960s excavation, and without by the subsequent bank removal. This seems the most likely explanation. The alternative, that the inner kerb has been totally rebuilt, is argued against because of the close correlation between significant parts of the kerb extant in 1989, with stones shown on the 1960s excavation plan and photographs. These records were used as the prime source of identification of original kerb components surviving in 1989, given the difficulties noted above. However, some portions of the kerb are uncertainly interpreted in this way (indicated on Fig. 3). The only part of the outer kerb investigated in 1989, to the north-west, did not tally with the 1960s excavation plan, so had been rebuilt.

In seven out of nine cases, the assessment of the original positions of the orthostats prior to restoration was facilitated greatly by the location of their stoneholes. In addition, stone 36 was still *in situ* within its stonehole. One of the two stones at 28, and that at 14, had no surviving stoneholes. In the former case the adjacent stonehole for the larger of the two stones was only shallow. In the latter case the subsoil was probably truncated, as indicated by the shallowness of the surviving portion of an adjacent cremation pit. Identified stoneholes fitted orthostats relatively closely and varied in depth from 5cm to 15cm, but were truncated. Originally they would have cut the subsoil by up to c. 18cm. To the east three of the stoneholes did not penetrate the subsoil but were detected in the soil above, surviving where buried under the bank (stones 25, 28, 30). In contrast, to the north and west all four stoneholes were cut between c. 15cm and c. 18cm into the subsoil (stones 8, 11, 15, 36). The stonehole fills often comprised a dark peaty-loam which infilled the voids left after the stones collapsed (stones 8, 11, 15, 21, 25, 28, 30), and/or small amounts of pale sandy-loam, representing the original fills surrounding the upright stones (stones 11, 15, 21, 25, 36). In the case of the hole for stone 15, the pit was 8cm deeper than necessary, while that for stone 36 was larger in plan than usual. There was a small amount of charcoal scattered through the pale fill of the hole for stone 15. This produced a C 14 date of 960+/-60 BP (OxA-2439). The late date indicates either that the sample was contaminated, or more probably that the charcoal relates to a time when the orthostat fell, and which subsequently has migrated down the soil profile within the stonehole (Hedges *et al.* 1991).

At one side of the north-west trench was a 40cm wide strip of unexcavated bank within the 1960s baulk. Unfortunately at this point the inner kerb had tumbled inwards, hence its original form could not be assessed, except to say it was a minimum of two courses high. No outer kerb was present. The bank was covered with peat (context 39) up to a depth of 15cm, and the peat also filled the upper interstices of the bank. In the lower interstices of the bank rubble, and below this, was a dark, grey-brown, sandy loam (context 41). Outside the bank the upper portion of this layer was somewhat lighter in tone and had a pink tinge (context 40). Analogy with the site at Highlow Bank (Barnatt 1991a, 16-19) suggests the latter may be wind-blown material. Below these dark soils was a poorly formed iron pan (context 42), and below this a pale, yellow-brown, loamy sand (context 43) which contained flecks of charcoal. There was no clear-cut boundary between this layer and the subsoil below, although the change always occurred at about the same level; this contrasts with the iron pan which was at very variable depths and appears to reflect specific drainage characteristics above, rather than a horizon of any prehistoric significance. A pollen core was taken through and under the undisturbed bank, the results of which are described below by Frank Chambers (pp. 35-38). The small quantities of charcoal found in context 43 under the undisturbed bank may relate to clearance prior to the site being built. These gave a date

of 3535±70 BP (OxA-2440), which calibrated at two sigma (using Washington method A) gives a date range of 2120-1690 BC. This accords well with a date from charcoal associated with a cremation under the central cairn (Lewis 1966). The 1960s sample gave a date of 3450±150 BP (BM-179), which when similarly calibrated has a range of 2192-1430 BC.

Upon restoration the positions of eight out of ten orthostats were precisely known from the excavated stoneholes. In each case these holes were sufficiently small, and they had irregular shapes that corresponded with the stone bases, to enable the placing of stones to within 2-5cm of their original positions. Of the five missing orthostats, four were identified amongst the 1974 material removed from the bank in the 1989 excavation. This was achieved by careful comparison with photographs taken in 1962-70. In one case the original orthostat was not relocated (stone 14). The trench here was relatively small and the stone may remain buried somewhere in this quadrant; a replacement stone was inserted in approximately the correct position to mark the site. In this case the stonehole was not present (see above) and the stone was positioned from measurements taken from the 1960s excavation plan. To give each orthostat added stability small packing stones were introduced and rammed into place. In addition, where possible the stone was also trapped between adjacent kerbstones, either by moving existing stones slightly nearer the orthostat, or by doing this with stones at a higher level in parts of the kerb being rebuilt.

The main restoration work undertaken on the bank was the rebuilding of the inner kerb (Fig. 3). In several areas the original stonework had been reduced to a single course by robbing in 1988-89, or by collapse prior to the 1960s. Elsewhere the kerb was to full height, occasionally as original stonework but usually with additions made in 1974. Care was normally taken not to disturb any of the original stonework left *in situ*. The exceptions are four stones adjacent to orthostats. Extant 1974 stonework was left *in situ* except where it was within the 1989 trenches. Care was taken to rebuild the kerb to a consistent height and to maintain the character of the original portions. The bank rubble was replaced in all trenches and areas of recent robbing, care being taken to achieve a feature of regular height and appearance. No stones of the outer kerb were touched, except in the north-west trench. Not enough data on the original form of the entrance were available to warrant any changes being made to the feature as it was defined in 1974, but this may now be wider than the original (Lewis *pers. comm.*).

The internal cairn was significantly too high prior to restoration and lacked a kerb. The height was reduced to one as similar to the original as could be estimated from 1960s photographs and a kerb of similar proportions to the original was built. A cupmarked stone found in the 1960s on a kerbstone could not be located, and a slab with a dubious cupmark was used in its place. No attempt to rebuild the cist near the cairn was attempted, as not enough data were available on its original form. Work here was restricted to removal of stones introduced in 1988-89, replacement of the capstone to its pre-1988 position, and the introduction of a small amount of soil and turves to level the cist interior.

Two small cupmarked stones, each with a single cupmark, were found on site in 1989, one on the surface of the bank just north-west of the entrance, the other outside the circle to the north-east, adjacent to the site of the 1960s spoil tip. It is not clear if these are two of the six stones found during the 1960s excavation (Lewis 1970). The stones found in 1989 were removed and deposited in Sheffield City Museum for safekeeping, as they were of a small size and would have been easily stolen from the site.

Comment

This section confines itself to discoveries made in 1989, rather than a more general interpretation

and overview, which will be more appropriately discussed in a report on the 1960s excavation.

The main addition to our knowledge of the site gained from the 1989 work is the recognition of stoneholes in eight out of ten instances. To the north and west the four orthostats were set in relatively deep holes, while those in the other half of the site were shallower. These findings modify Lewis's over-simplistic statement that the stones were 'set at intervals in holes barely entering the sub-soil' (Lewis 1970, 47), which was presumably made from restricted investigations made at the eastern orthostats as none of the holes to the north and west showed signs of previous disturbance.

The 1989 excavations and restoration confirm observations made previously (Barnatt 1987b, 152-63; 1989a, 114-27; 1990, 15-22), that the orthostats were all of a similar height to the bank and internal kerb, with one exception to the west-south-west that was significantly higher (orthostat 8). The spacing of the orthostats is highly erratic. They are set relatively close together to the east, including two contiguous stones, and have an unusually wide gap to the south/south-west. This is the only extensively excavated site in Britain where the spacing can be shown to be this irregular (Barnatt 1987; 1989a) and hence it is not easily explained. One possibility, which remains unexplored, is that the ring has been modified in prehistory, and that a further one or two stoneholes remain under the unexcavated kerb to the south and south-west. Given that the stones were set in stoneholes, the site may have started life as a freestanding ring.

The full range of prehistoric soils at Barbrook II, and their interpretation, could not be assessed in 1989 because of the small area of undisturbed site available. Two very different prehistoric soils were present in the 1960s baulk investigated, The upper dark, humic-rich soil (contexts 40/41) contrasted to that below the iron pan, which was a pale loamy sand (context 43) The latter was also found elsewhere on site to the east and south-west (contexts 17, 32), and had no clear cut boundary with the subsoil below. This allows the possibility that it is an upper part of the subsoil that has discoloured by leaching. However, this seems unlikely, given similarity with the pale sandy fills found in stoneholes, and the highly irregular level of the upper boundary to context 43. It is probable that the differences between the two soils are the result of post-depositional processes, the upper soil having large amounts of humus downwashed from the peat above, while the iron pan prevented this happening below. If this is the case no clear differences between soils predating the monument, and others which are later, but still predating peat formation, can be made in the restricted area dug in 1989.

After this unfortunate history, Barbrook II is now largely a twentieth century monument. However, this said, it is argued to be closer now to its original appearance than at any time since prehistory. All that is certainly original and undisturbed are the parts of the structure in two narrow baulks across the bank; large parts of the lower courses of the inner kerb; and possibly parts of the outer kerb and some areas of buried soil under the disturbed bank. In addition, nine of the orthostats have been replaced in their original positions.

POLLEN ANALYSIS OF SAMPLES FROM BARBROOK II (FMC)

Introduction and methods

Samples were taken from a vertical profile of a buried soil exposed under the enclosing bank during the 1989 excavation described above. The samples were submitted to the Palaeoecology Laboratory, Keele University for pollen analysis. In the laboratory, samples were prepared after Barber (1976, 75) and mounted in silicone fluid. Prepared slides from eight samples were counted to a pollen sum of *c.* 500 total land pollen (TLP — excluding spores and aquatics) using traverses 1mm apart at a magnification of x600. Pollen was identified with the aid of type

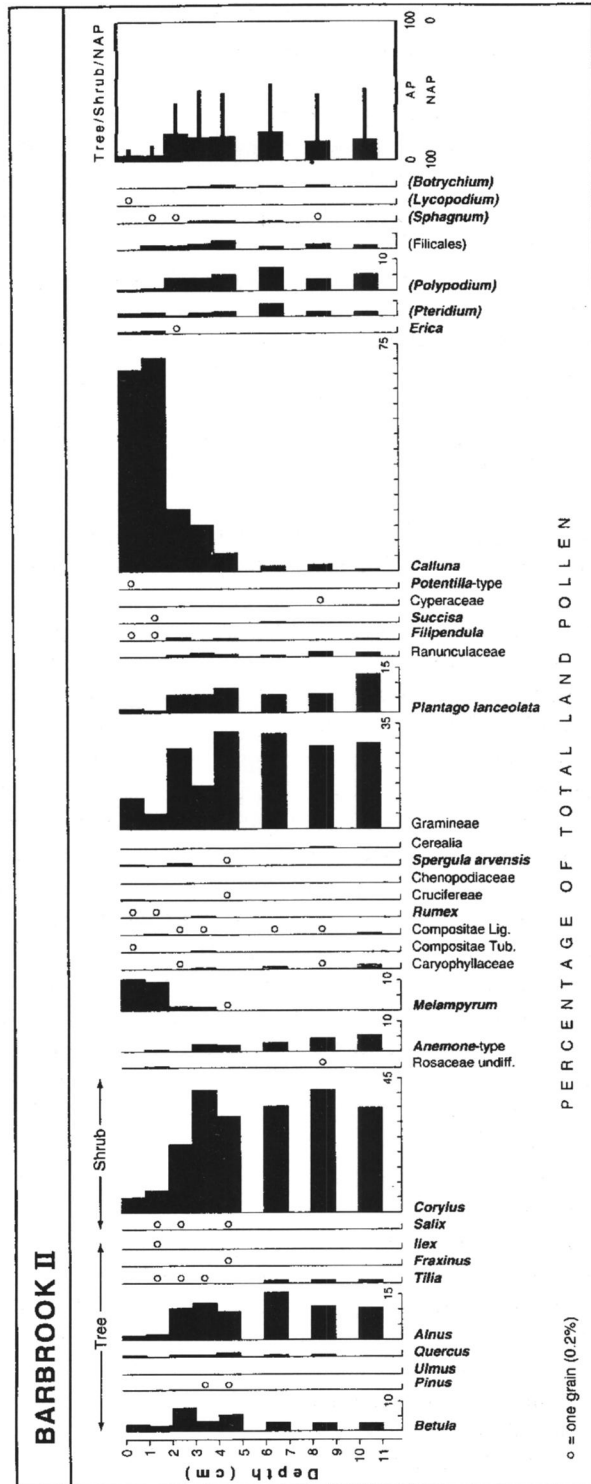


Fig. 4: Peak District stone circles: pollen diagram from a vertical profile of soil buried under the enclosing bank of the Barbrook II stone circle. Taxa in parenthesis were excluded from the pollen sum. Arboreal pollen/non-arboreal pollen (AP/NAP) ratios are shown, based on the total land pollen (TLP) sum.

reference material and use of pollen identification keys in Faegri and Iverson (1989, 241-88) and Moore *et al.* (1991, 86-162). Results are given in Fig. 4.

Results (Fig. 4)

Pollen was reasonably abundant in all but the basal sample. Although the pollen grains were generally in good condition, it is possible that less resistant taxa (e.g. *Quercus* — oak) are under-represented in the counts (cf. Havinga 1974, 449-53; Dimbleby 1985, *passim*).

The spectra exhibit some major differences. Overall, *Calluna* representation increases up the profile from 0.5% to 70%). *Corylus* representation is between 34 and 41% in the lower part of the profile but has much reduced representation in the upper horizons. Gramineae values are high in the lower half of the profile (27-32%), then drop to 14%, recover to 27% and then fall again to 5-10%. Arboreal pollen/non-arboreal pollen (AP/NAP) ratios are c. 1:1 in the lower samples, but drop significantly in the upper horizons to as low as 1:9 or 1:10. *Anemone*-type grains are consistently recorded in the lower horizons, whereas *Melampyrum* are recorded abundantly in the upper horizons. Two of the three uppermost horizons analysed contain *Spergula arvensis* pollen. It appears then from the changing pollen spectra that the vertical profile does represent a time series.

Discussion

The high values of *Corylus*, together with *Alnus* and pteridophyte spores, in the lower pollen spectra imply a much more wooded local environment than is indicated in the top two samples. The presence of *Anemone*-type in the lower half of the profile implies the presence of wood anemone (*A. nemorosa*), a plant typical of deciduous woodland ground flora. In contrast, the very high representation of *Calluna* together with a few grains of *Erica* in the top two samples indicates heather moorland. Though the increase of heather pollen in much of the profile is gradual, its expansion from 20% to 70% between samples 2-3cm and 1-2 cm is drastic, implying a major clearance of remaining hazel and alder woodland, acidification and podsolisation of local soils, and deterioration of nearby grasslands. The high percentages of *Corylus* pollen (41% of TLP), immediately preceding the heather expansion, imply that hazel woodland or vestigial hazel scrub was close to the site, whereas the lower percentages of *Alnus* (12% TLP) suggest that any alder woodland may have been in moist valley bottoms, adjacent to Bar Brook to the west and south-west of the site. The very low *Quercus* values probably reflect differential destruction of oak pollen grains and almost certainly under-estimate the representation of oak in the region.

The abundance of *Plantago lanceolata* in the lower samples implies that the environment was then already influenced by significant human activity (cf. Behre 1986, *passim*). Often taken to be an indicator of pastoralism, *P. lanceolata* might better be interpreted as merely an indicator of human influence (cf. Behre 1981, 229). Relatively high Gramineae values also suggest pasture, but the presence of two cereal-type pollen grains in sample 8-9cm implies that some arable activity was then being practised in the area.

Although the main shift is from woodland to heathland, there are indications that the picture may have been more complex than this. Between samples 4-5cm and 2-3cm, marked changes in the representation of *Calluna*, Gramineae and *Corylus* occur. Whilst *Calluna* increases its representation over these horizons, hinting at a general trend towards increasing soil acidification and the development of heath, *Corylus* representation first rises from 31% to 41%, then declines to 22%, whilst Gramineae values halve from 32% to less than 15%, but then rise to 27%. *Anemone* representation, previously significant, is absent from sample 2-3cm, whereas *Melampyrum* values increase from a trace in sample 4-5cm to over 1% TLP above. These changes, together with shifts in the proportion of other taxa, imply a degree of instability in the vegetation, perhaps caused by human activity. Indeed, the presence in the upper pollen samples

of pollen from *Spergula arvensis* (corn spurry) – a noted segetal – also implies arable agriculture late in the sequence; this took place at a time when Gramineae pollen increased and *Corylus* declined.

The high values of *Melampyrum* (cow-wheat) in the top two samples might be taken as an indicator of disturbance by burning (Moore *et al.* 1986, 213-14). Heather moorland is traditionally maintained by regular burning, though it is not known when this practice originated. Regular burning, together with grazing, could have helped to produce the heather dominated vegetation indicated by the upper pollen spectra.

Similar pollen spectra, with high Ericaceae (*Calluna*) and *Melampyrum*, were recorded from the fill of a cremation pit (35) during excavation of cairns and other features on Eaglestone Flat, Curbar (SK 26657406), c. 2km from Barbrook II (Chambers 1994, 340-44). There, charcoal from the pit was dated at 2 sigma to 2020-1640 Cal. BC (GU-5130). Charcoal from immediately under the bank of Barbrook II, adjacent to where the pollen core was taken, has produced a comparable date at 2 sigma of 2120-1690 Cal. BC (3135+/-70 BP; OxA-2440). At Eaglestone Flat, there was some evidence to imply possible contamination of the pit samples by vole runs, so it was not certain whether the pit pollen spectra there were contemporary with the pit. However, the two similar pollen spectra from Barbrook II might argue in favour of contemporaneity. More significantly, there was evidence that the contents of the pit, along with the burial it contained, may have been imported to the site from elsewhere on the gritstone upland. Hence, it appears that heather moorland had developed at one or more sites in the Peak District, directly influenced by human activity, earlier than the middle of the second millennium BC. Such changes are hinted at in the pollen diagrams of Hicks (1972, *passim*).

Conclusions

The lower pollen spectra suggest a landscape of grassland pasture and hazel woodland, whereas the upper spectra, immediately prior to the construction of the stone circle, indicate heather moorland. Grassland pasture may have been established in the area for some considerable time and appears to have lasted until the demise of the remaining hazel woodland or hazel scrub. Cereal cultivation also appears to have taken place, at the time when the hazel declined and before the heath-dominated landscape was fully developed.

Hence the pollen data imply that the Barbrook II stone circle was constructed in an environment recently converted to heathland from former hazel-dominated woodland, in a landscape already significantly affected by human activity, possibly largely pastoral, but including former arable agriculture in the vicinity.

EXCAVATION AND CONSERVATION— HORDRON EDGE STONE CIRCLE (SK21518684)

This stone circle (Barnatt 1990, 45-7) is little visited, due to its isolated location and the lack of public access. Up until 1992, when the ten visible orthostats were irregularly spaced suggesting some stones were missing, the site had been in the same state for many years (Bateman 1848, 48; Addy 1893, 55; Barnatt 1990, 45-7). However, in the spring of 1992 a previously unsuspected orthostat was dug out and re-erected by persons unknown (Fig. 5, orthostat A). The pit dug round orthostat A to uncover it had been backfilled, but there had not been enough material to bring the surface up to the surrounding level, the latter being up to c. 10cm higher. The fill of the pit included a broken ceramic feeding trough, some pieces of which were exposed at the surface.

The 1992 excavation and restoration

As the pit round orthostat A had been poorly backfilled it was decided, in consultation with English Heritage, that the recent fill round the stone should be removed to record the extent of modern damage and the nature of any layers cut through. The fill was then to be replaced to create a level surface. No undisturbed layers were removed. To prevent the orthostat from collapsing during excavation a small 'pillar' of backfill to the west was not re-excavated. Before the pit was refilled, a marker horizon of limestone chippings was laid. Copies of the excavation archive are lodged with Derbyshire Sites and Monuments Record and the Peak Park Joint Planning Board archaeological archive. The context numbers used during excavation are used below.

The pit dug in 1992 (context 1), to remove and re-erect orthostat A (2), measured 1.2x1.7m in plan and was 0.55m deep at the western end. The backfill (3) comprised loosely packed soil, turves, three small gritstone slabs and the broken ceramic trough. Two of the gritstones had been used as chocks (10) at the base of the orthostat. The soil component of the fill was entirely a dark peat, indicating that disturbance in 1992 of the buried prehistoric soil (6) and subsoil (7) was minimal. In shape, the 1992 pit had slight waists on the north and south sides, which suggests that it was dug in two phases. The eastern part (and presumably extending further westwards) was dug to expose the buried orthostat. The western part of the pit appears to have subsequently been 'sharpened-up' in preparation for the re-erection of the stone.

The orthostat was a gritstone slab with weathered edges and corners, measuring 0.3x0.5m in section and 1.14m long. The present top north-west corner was discoloured in a triangular patch measuring 0.25x0.38m, which indicates this small part of the stone was exposed prior to 1992. This had been wrongly interpreted previously as one of the small and 'loose' stones which occur round the ring circumference (Barnatt 1990, 45-7).

The 1992 pit had cut through a typical upland podsolized soil profile. Under the coarse grass turf and root mat (4) was a dark fibrous peat (5) *c.* 10cm thick. Below this was a buried mineral soil (6), *c.* 15-20cm thick and comprising a mid-tone, brown, sandy loam with a pink-grey tinge above and darker in colour below. This in turn lay above a subsoil (7) which was a pale-toned, yellow-brown, sand.

The 1992 disturbance pit became steeper on the eastern side as it reached the subsoil. There was no redeposited subsoil in the 1992 pit backfill, and the very base of the pit contained relatively dark soils (9/11) predating the disturbance, which suggests that the more steeply-cut feature was the remains of an original stonehole. At the top of subsoil this stonehole measured *c.* 0.45x0.95m and had been dug out in 1992 to a depth of *c.* 0.20m below this level. At the southern end of the stonehole base the remaining dark fill (9) was only a very thin skim and this was removed during cleaning. Elsewhere within the stonehole the fill (11) was thicker and was left unexcavated. It comprised a mid-tone, brown, loamy-sand which was somewhat mottled.

While the original stonehole can be identified, and the stone re-erected in approximately its original position, it is not known if it has been set at the correct height. It is also not clear if a shallow hollow in the mineral soil to the east of the orthostat, which led to its original collapse, is the product of livestock erosion or had been purposefully dug. The fact that the recumbent orthostat was buried largely below the peat, and no obvious hollows were visible on the surface, suggests that stone collapse took place in relative antiquity. However, it is not known if this happened in prehistory, or much later, perhaps as an act of deliberate slighting, given that the site is known to have been a Medieval boundary marker.

The survey (Fig. 5)

In addition to the conservation work described above, a detailed survey was made of the

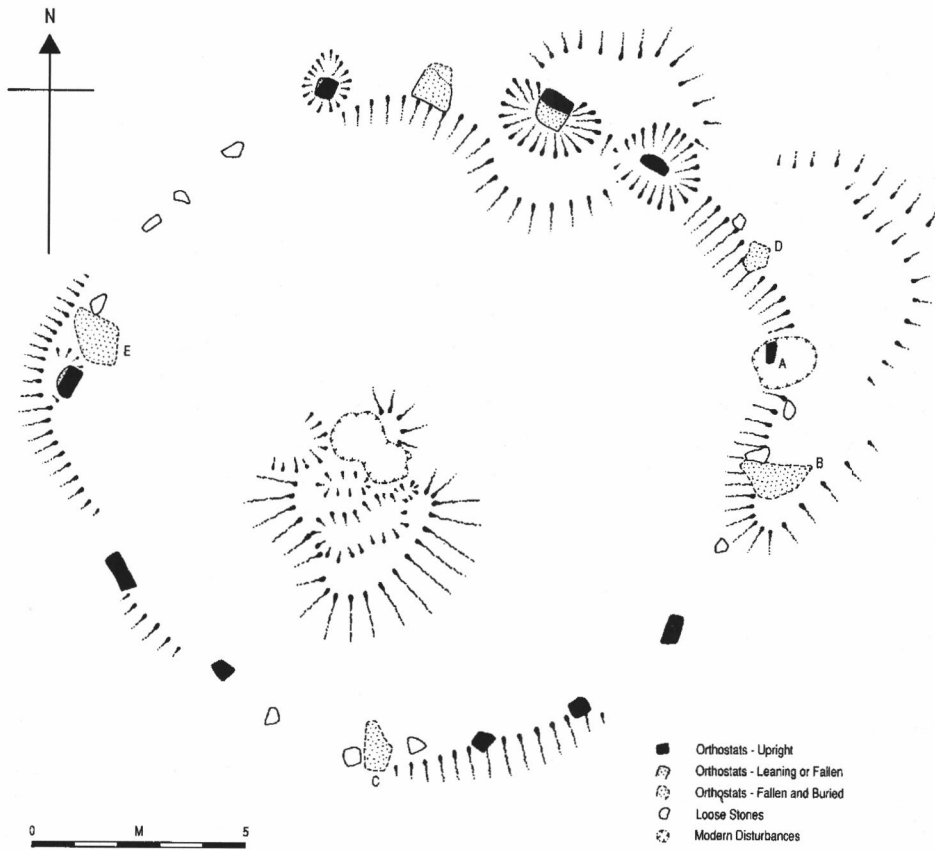


Fig. 5: Peak District stone circles: plan of the Hordron Edge stone circle.

monument. All visible features were included, and the circumference of the circle and the internal cairn were probed to record masked stones.

Prior to 1992 there were ten clearly identifiable weathered gritstone orthostats. An additional three to five stones have now been identified. Orthostat A is re-erected and has been commented on above. Stones B and C have been located by probing, and their size and positions on the ring strongly suggest they are recumbent orthostats. Stone D is smaller and it was not clear upon probing if this was a single stone or more than one small stone; thus interpretation is unclear. Stone E is of similar size to B and C and hence may well be a buried orthostat. However, it lies close to an upright orthostat and does not fit comfortably with the spacing of stones round the ring. Thus, some element of doubt must remain over its interpretation. The upper surfaces of all the buried stones lay under *c.* 10cm of peat and/or soil. A large gap in the ring to the north-west was carefully probed but no buried stones were found.

The new orthostats are of comparable size to others in the ring. However, their positioning in the gaps round the ring is less regular than assumed when a conjectural reconstruction was presented in 1990 (Barnatt 1990, 46). At that date it was suggested that originally the site probably had sixteen orthostats. The somewhat irregular spacing of the new orthostats suggests that while sixteen still may well be the most likely total, the possibility that there was up to twenty

stones cannot be discounted. Problems are particularly acute to the north-west, where the placing of stone E is wrong. This, and the lack of stones north of it, suggest either the site has been slighted and some stones removed, or that it was never finished. Another possibility, unparalleled in the region, is that stones were never built here, to emphasise this gap as an 'entrance'.

Slight breaks of slope around the circumference of the ring suggest the orthostats are set at the edge of a levelled platform cut into the slope. Downslope to the south the lip of this is mostly only *c.* 0.1m high, while upslope to the north-east the lynchets cut into the slope is *c.* 0.2m high. The upslope half of the site has further breaks of slope. Some of these make it appear that there is a slight penannular bank with the orthostats at the inner edge, as with the majority of Peak District stone circles (Barnatt 1990). However, this 'bank' is more likely to be a fortuitous natural variation in surface. There is certainly no corresponding bank in the south-western half of the ring, where the lynchets fall in the wrong direction. To the north there is a *c.* 0.1m high break of slope within the ring that may suggest there is a low mound surrounding one of the orthostats. However, this could equally be seen as upcast from livestock disturbance round the stone.

In the south-western quadrant of the interior there is a low cairn masked by turf and thin peat. This is of somewhat irregular shape, measures 5.5x6.0m across and is less than 0.2m high. It has three shallow pits indicating previous disturbance. There is also a vertically-sided disturbance *c.* 0.1m deep. This is the result of fires in recent years (J. Archdale *pers. comm.*), of sufficient intensity to burn out the peat.

FIELDWORK—NEWLY IDENTIFIED SITES

North Lees, SK23668371/SK23668373 (Fig. 6)

Two adjacent rings were found during fieldwork in 1991 (Barnatt 1991b, catalogue 12, site 59). They lie within enclosed land on the main gritstone shelf south from Sheepwash Bank, at *c.* 305m OD and are in line with a nearby ruined barrow on the shelf edge (Barnatt 1986, 29, 92, cairn 9; Barnatt 1989b, site 28:12). Two or three smaller degraded mounds were also identified in 1991, suggesting that all three monuments lay near the south-eastern end of a cairnfield largely swept away when the land was improved in the nineteenth century. Because both have been ploughed-over, which has spread features and in part removed them, it is far from clear whether the two rings described here are damaged ringcairns or robbed barrows. The latter is perhaps a more probable explanation, given the irregular banks/lynchets and linear association with a nearby barrow, but they are included here as possible ringcairns.

Each ring is 0.1-0.3m high with a relatively flat interior. That to the north has an external diameter of *c.* 14.5x13.5m and an internal one of *c.* 9.0m. That to the south has an external diameter of *c.* 15.5x13.5m and an internal one of *c.* 9.0m. They are 9.0m apart in a north/south line and *c.* 33.5m from the barrow to the south. The northern ring is slightly better preserved than its partner, with a clear bank on the upslope half and a terraced edge to the downslope side. There is a slight rise at the centre. The southern ring has a bank downslope, while on the upslope the feature has been largely destroyed and spread across the interior.

Eaglestone Flat, SK26497388 (Fig. 6)

This ringcairn was discovered in 1990, following heather burning, and surveyed in 1991. The ringcairn is sited on a flat shelf, at *c.* 285m OD, and is associated with fragmentary remains of a cairnfield with field boundaries, badly disturbed by extensive hollow ways. Part of this cairnfield, *c.* 250m from the ringcairn, comprises an excavated overlapping series of small cairns and linear clearance features, associated with a cremation cemetery, investigated in 1989-90 (Barnatt 1994).

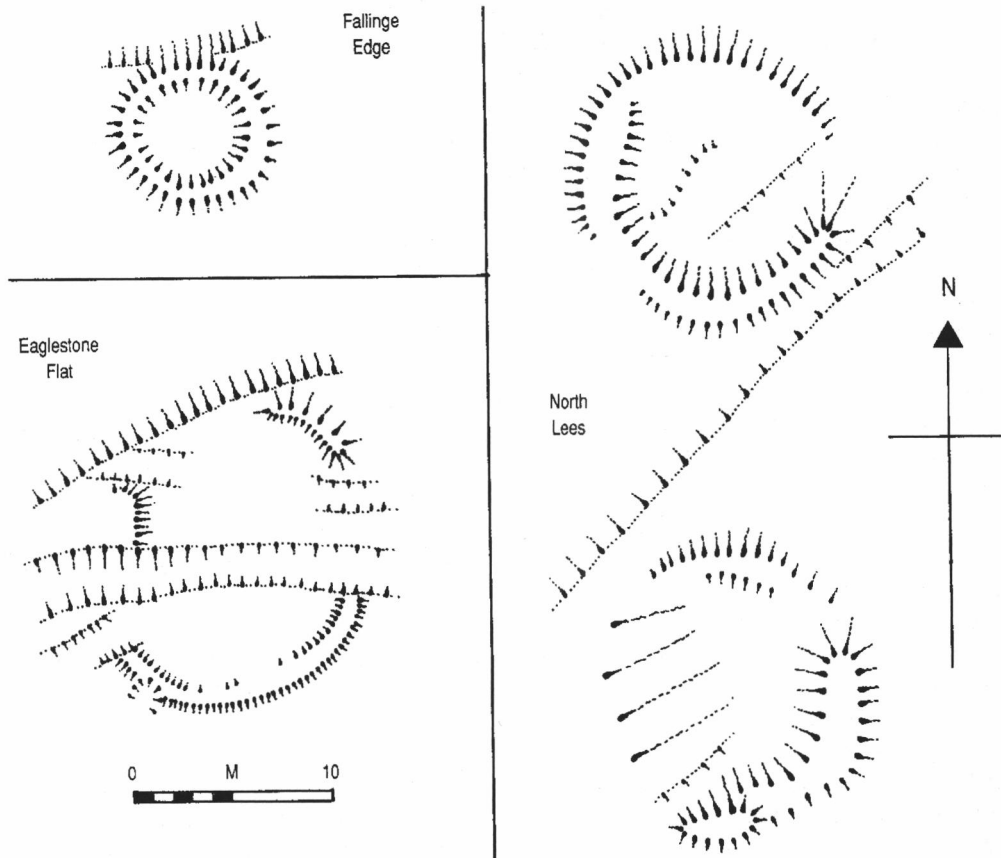


Fig. 6: Peak District stone circles: plans of the North Lees, Eaglestone Flat and Falling Edge ringcairns.

The ringcairn consists of a rubble bank which is 1.5-2.0m wide, has an internal diameter of *c.* 13.5m and an external one of *c.* 17.0m. The northern part has been removed by a deep hollow way and the central area is cut by shallower tracks. Less than half the original circuit of the bank survives and no original entrance is obvious. To the west, there is a raised area lying within the projected inner line of the bank. The interpretation of this is uncertain. One possibility is that there is a cairn on the bank similar to those recorded at Birchen Edge North and Barbrook III (see below).

Birchen Edge North, SK28467340

This possible ringcairn was discovered in 1990 during a 1:1000 survey of the area undertaken jointly by staff of the Keele Office of the Royal Commission on the Historical Monuments of England (RCHME) and by the author for the Peak National Park Authority. It lies *c.* 70m to the south-east (centre to centre) of the Birchen Edge North ringcairn published previously (Barnatt 1990, 59-60; also see below).

The ring comprises an earthen bank 2.0-2.5m wide and 0.1-0.2m high. This survives in its northern half, with an internal diameter of *c.* 8.5m and an external one of *c.* 13.0m. The other half is disturbed by a trackway. It is not clear if this is a ringcairn or a house site.

FIELDWORK — NEW OBSERVATIONS

Barbrook III, SK28337729 (Barnatt 1990, 54-55)

The three breaks in the enclosing bank of this embanked stone circle, and mounds next to the gaps, can be interpreted in different ways. The break to the east-north-east is more sharply defined than the other two and may be an original entrance with a small cairn superimposed on the northern terminal. The other two gaps have slight breaks of slope following the circumference of the site, suggesting that the bank actually continues in masked form across the breaks. Thus the gaps may well be illusory, the appearance of gaps being created by two or three cairns superimposed on the bank at the ends of the apparent breaks. Two of these are relatively high cairns, while the possible existence of another is suggested by stone in front of the orthostat to the east of the WSW gap.

Birchen Edge North, SK 28437347 (Barnatt 1990, 59-60)

This site was re-examined in 1990 as part of a 1:1000 survey, noted above, undertaken jointly by the Keele Office of the RCHME and the Peak National Park Authority. Its location was more accurately determined than previously (Barnatt 1990, 59) and aspects of the monument further elucidated. The bank appears to be built of earth and stone and the interior has been levelled by terracing into the gentle slope. On the upslope side a reverse lynchet runs in a continuous arc. There is a break in the bank above the lynchet, which appears to be a previously unrecognised 2.0m wide entrance, just west of true north. In addition to the cairn overlying the bank to the north-east, noted previously, there is a low cairn in the interior, just west of the centre. This measures *c.* 2.0m across and is 0.1-0.2m high. Adjacent to this, to the north-west, is a buried horizontal slab which is either a cist cover or an earthfast naturally placed stone.

Park Gate, SK28056851 (Barnatt 1990, 64-66)

An additional orthostat has been identified at this stone circle, making the total number eleven to fifteen stones. The new stone lies fully buried to the north-west. It has fallen inwards and was erroneously marked on the plan published in 1990 as a tongue of bank material running into the interior. It measures *c.* 1.70x 0.70m and may well have stood approximately as high as the stone thought to be the tallest in the ring, at due south, demonstrating that the ring is not graded and that the southern stone may have no special significance. This observation is supported by examination of the large, slab-like orthostat to the south-south-east. Probably this has had a piece removed from its base (at the highest end of the stone since it fell), as indicated by the sharpness of the edges here compared with the rest of the stone. This stone was probably equally as high as the other two discussed above.

Fallinge Edge, SK27746591 (Fig. 6; Barnatt 1990, 94)

This site was rejected in 1990 as more probably a robbed barrow than a ringcairn. Re-inspection and a new survey suggest that no differentiation can be drawn between these two interpretations, both being equally viable. It lies on the main gritstone moor, at *c.* 322m OD, between a cairnfield at Ravens Tor, *c.* 800m to the north (Barnatt 1986, 61-2; cairnfield 39), and fragmentary remains of another cairnfield discovered in 1992 at *c.* 450m to the south-south-west (Barnatt 1992a, catalogue 16, site 3:3). This latter cairnfield, comprising small and low mounds of small stones, was found only because of exceptionally overgrazed vegetation in its vicinity. Further but yet unrecognised low cairns may occur nearer the ring. One such cairn has been identified previously next to the ring (Barnatt 1986, 65, 94, cairn 82), but could not be relocated in 1992 due to thick heather. The ring comprises a rubble bank which is *c.* 2.0m wide, 0.3m high, has an external diameter of 9.0x8.0m and an internal one of 5.0x4.0m. Its profile is smooth and the interior flat. The bank's northern external edge has been clipped by a hollow way.

Wet Withens, SK22557899 (Barnatt 1990, 71-72)

Burning of thick heather vegetation at this site since it was surveyed by the author in the mid 1970s has revealed further details. The stone shown as a small, possible orthostat on the 1970s plan (published 1990, 72); to the north-east is a fortuitous part of the bank rubble. Similarly a stone elsewhere in this quadrant, shown on a detailed drawing by Wilkinson last century (Wilkinson 1861, plate xi op. 59), can now be identified and is unlikely to be an orthostat. All but one of the ten orthostats were deeply carved with the initials FU, presumably in the nineteenth century. There is a low cairn in the interior of the monument, not identified on the 1970s plan, which lies immediately south-east of the centre and surrounds a more recent scatter of stones and an associated pit. This cairn has a diameter of c. 6.0m, is no more than 0.2m high, and is probably that referred to by Wilson in the 18th century (Bateman 1861, 248).

Nine Ladies, SK24916349 (Barnatt 1990, 76-77)

Currently this monument is suffering from an increasingly severe erosion problem due to excessive visitor pressure and the frequent use of the immediate vicinity as an unauthorised campsite. The most serious damage is that the King Stone has been broken in two, split close to ground level when a vehicle was backed into it. The bank of the stone circle is bare of vegetation over much of its circuit, revealing that it is made up of both earth and stone. More of the central cairn has also been exposed, with its rim now visible to the south-east.

Stanton Moor III, SK24806327 (Barnatt 1990, 77-9)

Again this large diameter site has had its vegetation burnt-off since it was surveyed by the author in the mid 1970s. It has been terraced into the gentle slope to create a level interior in which are the remains of one or two mutilated low cairns. The most obvious lies to the north-east of the centre and originally had a diameter of c. 6.0m. Upcast from a pit dug at the centre has been thrown to the south-east. The other possible example lies well to the south-west of the centre and has a diameter of c. 3.0m and a small central disturbance.

Stanton Moor IV, SK24716290 (Barnatt 1990, 78-9)

The interior of this embanked stone circle is so irregular that it is impossible to determine if it contains a mutilated cairn or not.

LOST SITES — NEW INFORMATION

Seven Brethren (Seven Brideron), c. SK307642? (Barnatt 1990, 68)

A further unpublished account of this site has recently been kindly provided by Barry Marsden. In his possession is a transcript of a document passed to him several years ago by the late John Bestall, the original provenance of which is now unknown. This reads:

Samuel Pegge — After the seventh milestone on the turnpike from Chesterfield to Matlock, take the Bakewell road till you reach the crossroad from Ashover Overend to Matlock Bank and Darley. Turn left into this crossroad and after crossing a small sick you see on the left hand side the large stones called the “Seven Brethren” — actually ten stones but one is broken, one displaced and one I think quite gone. All formerly stood on end and in holes surrounded by an edging of rough stones.

The original account must have contained further text, as Bestall noted data that does not occur in the only other known description of the site, within Rooke’s late 18th century notebooks now in Sheffield City Museum. Bestall states that the site was oval of 9x7 yards with the longer diameter north/south. At these extremities the stones were larger and wider spaced.

This new data is invaluable in that it clarifies both the location and the design of the site. Pegge’s description of how to find the site indicates it was either south of the road running from SK313643 to SK302644, or east of a continuation after it turns sharply to the south-south-west

at a junction, running to Matlock Bank and leaving the moor at *c.* SK295628. Neither of these locations squares easily with Rooke's observation that the circle was at the south-eastern end of Matlock Moor. None of the land adjacent to the roads noted above are in Matlock Parish. Taking Pegge's account at face value it would seem likely that the site was adjacent to the first of the two stretches of road noted above, as he is likely to have mentioned a second left turn at the junction. At *c.* 500m from this road, at *c.* SK 309639, is the north-eastern corner of Matlock Moor and this may be the area meant by Rooke, if he accidentally transposed north with south in his account. Alternatively, and perhaps more likely, Rooke may have been unaware of the exact course of parish boundaries and he may have meant anywhere in the general vicinity of this north-eastern part of the moor. This could suggest a location nearer to the road and more clearly visible from it, centred at *c.* SK307642.

Rooke may also have got the name of the site wrong, as Pegge refers to it as the Seven Brethren, which seems a more likely name than the obscure Seven Brideron. The diameter of the circle may be more correctly described as *c.* 6.5x8.0m rather than the *c.* 7.5m suggested by Rooke. It is also likely that the stone circle was embanked, as is usual in the Peak District (Barnatt 1990, 13-17), or less probably kerbed as at Doll Tor (Barnatt 1990, 79-82). Pegge's account suggests there were nine stones present rather than the seven visible on Rooke's drawing, and Pegge confirms the large gap where a stone was apparently missing. It is not clear if the comment that there were large stones to north and south implies that there was a second exceptionally large stone, then fallen. Alternatively, Rooke's drawing may give a true impression of only one very large stone at the site, with the opposite one, while relatively large, still being much smaller than its counterpart.

Top of Riley, SK 23..77.. (Barnatt 1990, 75)

Over the last three years the whole area where this circle once stood has been searched without finding any vestige of the monument. One certain mutilated barrow and one possible example have been found on Magclough Farm, in a small area that was moorland until a few years ago, centred at SK 230770 (Barnatt 1992b, catalogue 2, sites 3 and 5). It is not known if these are the barrows documented as associated with the circle. If the circle was elsewhere in the general vicinity it is likely to have been destroyed at the time of the Enclosure Award of 1812, or soon afterwards.

FIELDWORK — REJECTED SITES

Birchen Edge South, SK28177239 (Barnatt 1990, 59, 61)

Re-inspection of this site after vegetation had been burnt shows that, while certainly man-made, it has two halves which are different from each other. To the north-west it is a low, narrow bank of stone, while to the south-east it is a stony lynchet dropping south-eastwards. At the junctions there is a natural outcrop to the south-west and an abrupt angle change to the north-east. The site is not a ringcairn. The north-western feature may well be field clearance round the edge of a levelled platform with a lip to the south-east. This platform could have contained a circular timber building.

Gibbet Moor South, SK28107027 (Barnatt 1990, 62, 64)

Re-inspection by the author, after heather burning, confirms the RCHME interpretation of the site as domestic/agricultural in character (S. Ainsworth *pers. comm.*). It is best seen as comprising a prehistoric field bank to the north, running east/west and turning to the south-west at the western end, with a semicircular arc of stone to the south, possibly surrounding the site of a timber building. The two components may well have been built at different times.

Beeley Warren North-East, SK27946888 Barnatt 1990, 64)

A visit to the site in 1991, after removal of the bracken with its extensive tussocks of dead growth below, showed that it is a barrow with a disturbed centre rather than a ringcairn.

Beeley Moor North, SK28536769 (Barnatt 1990, 63, 66)

Re-inspection of the site in 1992 (Barnatt 1992a, catalogue 1-2, site 1:1), after thick heather had been burnt, shows the feature is very different to the adjacent ringcairn (Beeley Moor South). It is the site of a prehistoric timber house rather than a ringcairn, comprising a small circular platform terraced into the slope, with a negative lynchet upslope to the south-east, and a raised lip downslope to the north-west. There are two short arcs of clearance stone to the sides, which originally had been piled against the sides of the building. An almost identical site was discovered on Big Moor in 1989 (SK27397588).

DISCUSSION

Both restoration projects described above have added to our knowledge on stone circles in the Peak District. The method of construction of the Barbrook II stone circle was clarified by the recognition of stone holes for the orthostats, which previously had been thought primarily to have been held upright by being chocked into recesses in the drystone wall of the enclosing bank. More importantly, the C14 date of 2120-1690 BC from charcoal under the bank gives a valuable confirmation to the Earlier Bronze Age date of 2192-1430 BC obtained in the 1960s for the cremation under the central cairn. Very few radiocarbon dates have as yet been obtained for stone circles in Britain (Barnatt 1987b, volume 1, 216-221; 1989a, 155-61). The pollen data give an equally useful picture on the prehistoric environment. While being in general agreement with palynological data published for the eastern gritstone moors (Hicks 1972; Barnatt 1991a, 20-24; Chambers 1994), it also provides new insights. The unusually early development of heather moorland, prior to the construction of the circle, illustrates this may have been a common phenomenon locally on the eastern moors, well before it became more general in the late second or early first millennium BC. That such areas may have developed because of the practice of regular burning is a fascinating idea which should be explored further when more data become available. In more recent times this was common practice in the region. Farey described how shepherds would burn large areas of moorland to improve grazing for their sheep (Farey 1811-17). The presence of cereal pollen adds to the growing body of data (Barnatt 1991a, 20-24; Chambers 1994) supporting the idea that mixed farming was commonly practised locally in prehistory, rather than the eastern moors being a predominantly pastoralist landscape in the second millennium BC, as envisaged by Hicks (1972, 8-10, 17).

Re-examination of the Hordron Edge circle highlights an aspect of local stone circle design not previously noted in print, namely that some sites have been terraced into slopes to create a level interior. This was observed first on Stanton Moor during extensive survey of monuments by staff of the Keele Office of RCHME in the mid 1980s (S. Ainsworth *pers. comm.*). It is most clear at Stanton Moor III, but also occurs at Nine Ladies and possibly the other two sites on the moor. Elsewhere levelled interiors are found at Hordron Edge, Bamford South, Stoke Flat, Barbrook I and Birchen Edge North. The Hordron Edge circle is particularly interesting in that it shows terracing took place at freestanding rings as well as embanked sites. The positions of the newly discovered orthostats at Hordron Edge illustrate that the estimate of the original number of stones is now less certainly sixteen and may be between sixteen and twenty. This is still within the expected parameters for Peak District sites (Barnatt 1990, 15-16). The newly discovered orthostats also lead to the conclusion that the spacing between stones at this site was

not as regular as previously thought, but was somewhat erratic.

A further revision of the characteristics of Peak District stone circles and ringcairns results from the discovery of small cairns in the interiors of sites at Hordron Edge, Birchen North, Wet Withens, Stanton III and possibly Stanton IV. These now place the number of sites in the region with small internal cairns at over a third of the total. However, the new discoveries are all off-centre and strengthen the impression that they are secondary features.

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